

Hermann Schwameder  
List of Publications  
2018-07-11

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Book (4)

- Müller, E., Lindinger, S., Raschner, C., & Schwameder, H. (2001). *Skilauf und Wissenschaft*. Innsbruck.
- Schnur, A., & Schwameder, H. (2014). *Praxisorientierte Biomechanik im Sportunterricht – Vom Tun zum Verstehen*. Schorndorf: Hofmann.
- Schnur, A., & Schwameder, H. (2016). *Praxisorientierte Biomechanik im Sportunterricht – Vom Tun zum Verstehen*. Schorndorf: Hofmann.
- Schwameder, H. (2004). *Biomechanische Belastungsanalyse beim Berggehen*. Aachen: Meyer & Meyer.

Journal Article (83)

- Alexander, N., & Schwameder, H. (2016). Comparison of estimated and measured muscle activity during inclined walking. *J Appl Biomech*, 32, 150-159. doi:10.1123/jab.2015-0021
- Alexander, N., & Schwameder, H. (2016). Effect of sloped walking on lower limb muscle forces. *Gait Posture*, 47, 62-67.
- Alexander, N., & Schwameder, H. (2016). Lower limb joint forces during walking on the level and slopes at different inclinations. *Gait Posture*, 45, 137-142. doi:10.1016/j.gaitpost.2016.01.022
- Alexander, N., Strutzenberger, G., Ameshofer, L., & Schwameder, H. (2017). Lower limb joint work and joint work contribution during downhill and uphill walking at different inclinations. *J Biomech*, 61, 75-80. doi:10.1016/j.jbiomech.2017.07.001
- Alexander, N., Strutzenberger, G., Jenny, H., Augustin, H., & Schwameder, H. (2015). Static and dynamic evaluation of a pedal system for measuring three-dimensional forces in cycling *Proc Inst Mech Eng P J Sports Eng Technol*. doi:10.1177/175433711557702
- Alexander, N., Strutzenberger, G., Kröll, J., Barnett, C., & Schwameder, H. (2018). Joint moments during downhill and uphill walking of a transfemoral amputee with a hydraulic articulating and a rigid prosthetic ankle - a case study. *J Prosthet Orthot*, 30(1), 46-54. doi:10.1097/JPO.000000000000171
- Alexander, N., Strutzenberger, G., Kröll, J., Barnett, C. T., & Schwameder, H. (2017). Joint moments during walking on the level and on slopes of a transfemoral amputee with different prosthetic feet and a control group - a case study. *J Prosthet Orthot*, 30(1). doi:10.1097/JPO.000000000000171
- Böhm, H., Hösl, M., Schwameder, H., & Doderlein, L. (2014). Stiff-knee gait in cerebral palsy: how do patients adapt to uneven ground? *Gait Posture*, 39(4), 1028-1033. doi:10.1016/j.gaitpost.2014.01.001
- Christian, J., Kluge, F., Eskofier, B. M., & Schwameder, H. (2016). Comparison of different marker sets for marker trajectory and principal component analysis based classification of simulated gait impairments. *J Biomed Eng Inform*, 3(1), 10-17. doi:10.5430/jbei.v3n1p10
- Christian, J., Kröll, J., & Schwameder, H. (2017). Comparison of the Classifier Oriented Gait Score and the Gait Profile Score based on imitated gait impairments. *Gait Posture*, 55, 49-54. doi:10.1016/j.gaitpost.2017.04.007
- Christian, J., Kröll, J., Strutzenberger, G., Alexander, N., Ofner, M., & Schwameder, H. (2016). Computer aided analysis of gait patterns in patients with acute anterior cruciate ligament injury. *Clin biomech*, 33, 55-60. doi:10.1016/j.clinbiomech.2016.02.008
- Claas, E., Strutzenberger, G., Alexander, N., Langhof, H., & Schwameder, H. (2015). Effect of weight loss on gait kinematics and ground reaction force of obese adolescents in downhill walking: Pilot study. *Gait Posture*, 42(Supplement 1), S67-S68.

- Federolf, P., Scheiber, P., Rauscher, E., Schwameder, H., Lüthi, A., Rhyner, H. U., & Müller, E. (2008). Impact of skier actions on the gliding times in alpine skiing. *Scandinavian Journal of Medicine & Science in Sports*, *18*(6), 790-797. doi:10.1111/j.1600-0838.2007.00745.x
- Focke, A., Strutzenberger, G., Jekauc, D., Worth, A., Woll, A., & Schwameder, H. (2013). Effects of age, gender and activity level on counter-movement jump performance in children and adolescents. *Eur J Sport Sci*, *13*(5), 518-523.
- Fuchs, P. X., Lindinger, S. J., & Schwameder, H. (2017). Kinematic analysis of proximal-to-distal and simultaneous motion sequencing of straight punches. *Sports Biomech*, 1-19. doi:10.1080/14763141.2017.1365928
- Janoske, U., Gregor, H., Schrod, M., & Schwameder, H. (2011). Numerische und experimentelle Methoden zur Untersuchung des lokalen Diskomforts bei Armauflagen. *Automobiltechnische Zeitschrift*, *113*(1), 62-67.
- Klous, M., Müller, E., & Schwameder, H. (2010). Collecting kinematic data on a ski/snowboard track with panning, tilting, and zooming cameras: is there sufficient accuracy for a biomechanical analysis? *J Sports Sci*, *28*(12), 1345-1353. doi:10.1080/02640414.2010.507253
- Klous, M., Müller, E., & Schwameder, H. (2012). Three-dimensional knee joint loading in alpine skiing: a comparison between a carved and a skidded turn. *J Appl Biomech*, *28*(6), 655-664.
- Klous, M., Müller, E., & Schwameder, H. (2014). Three-Dimensional Lower Extremity Joint Loading in a Carved Ski and Snowboard Turn: A Pilot Study. *Computational and Mathematical Methods in Medicine*, 2014. doi:10.1155/2014/340272
- Kröll, J., Spörri, J., Gilgien, M., Schwameder, H., & Müller, E. (2016). Effect of ski geometry on aggressive ski behaviour and visual aesthetics: equipment designed to reduce risk of severe traumatic knee injuries in alpine giant slalom ski racing. *Br J Sports Med*, *50*(1), 20-25. doi:10.1136/bjsports-2015-095433
- Kröll, J., Spörri, J., Gilgien, M., Schwameder, H., & Müller, E. (2016). Sidecut radius and kinetic energy: equipment designed to reduce risk of severe traumatic knee injuries in alpine giant slalom ski racing. *Br J Sports Med*, *50*(1), 26-31. doi:10.1136/bjsports-2015-095463
- Kröll, J., Spörri, J., Steenstrup, S. E., Schwameder, H., Müller, E., & Bahr, R. (2017). How can we prove that a preventive measure in elite sport is effective when the prevalence of the injury (e.g., ACL tear in alpine ski racing) is low? A case for surrogate outcomes. *Br J Sports Med*, *Accepted for Publication*.
- Lindinger, S., Müller, E., Niessen, W., Schwameder, H., & Kösters, A. (1999). Der idealtypische Beinabstoß bei modernen Skatingtechniken im Skilanglaufrennsport aus biomechanischer Sicht. [The ideal push-off during modern skating techniques in cross-country ski racing from a biomechanical perspective]. *Spectrum der Sportwissenschaft*, *11*(Supplement), 71-78.
- Metzler, V., Osenstätter, K., Schwameder, H., & Baise, M. (2008). Improvement of gait pattern for children with infantile cerebral palsy and dynamic pes equinus after treatment with hinged subtalar circular locking ankle foot-orthoses. *Journal of Physical Medicine and Rehabilitation Sciences*, *11*(3), 92-97.
- Müller, E., Bartlett, R., Raschner, C., Schwameder, H., Benko-Bernwick, U., & Lindinger, S. (1998). Comparisons of the ski turn techniques of experienced and intermediate skiers. *J Sports Sci*, *16*(6), 545-559. doi:10.1080/026404198366515
- Müller, E., Benko, U., Raschner, C., & Schwameder, H. (2000). Specific fitness training and testing in competitive sports. *Med Sci Sports Exerc*, *32*(1), 216-220.
- Müller, E., Raschner, C., & Schwameder, H. (1998). Leistungsdiagnostik im Spitzensport - Bedeutung, Methoden und Anwendungsbereiche. *Spectrum der Sportwissenschaft*, *10*(2), 47-70.
- Müller, E., & Schwameder, H. (2003). Biomechanical aspects of new techniques in alpine skiing and ski-jumping. *J Sports Sciences*, *21*(9), 679-692.
- Müller, E., Schwameder, H., Schiefermüller, C., Raschner, C., & Niessen, W. (2003). Carving – eine neue Dimension des Skisports. *NOEO - Wissenschaftsmagazin der Salzburger Bildungs- und Forschungseinrichtungen*, *1*, 6-10.
- Niessen, W., Müller, E., Wimmer, M., Schwameder, H., & Riepler, B. (1999). Einfluss der Standhöhe auf die Kraft- und Momentensituation bei Riesentorlaufschwüngen. *Spectrum der Sportwissenschaften*, *11*(Suppl.), 50-56.
- Nüesch, C., Overberg, J. A., Schwameder, H., Pagenstert, G., & Mundermann, A. (2018). Repeatability of spatiotemporal, plantar pressure and force parameters during treadmill walking and running. *Gait Posture*, *62*, 117-123. doi:10.1016/j.gaitpost.2018.03.017

- Ofner, M., Kastner, A., Schwarzl, G., Schwameder, H., Alexander, N., Strutzenberger, G., & Walach, H. (2017). RegentK and Physiotherapy Improve Knee Function after Anterior Cruciate Ligament Rupture without Surgery after 1 Year – A Randomized Controlled Trial. *Complement Med Res*. doi:10.1159/000479152
- Ofner, M., Strutzenberger, G., Alexander, N., Kastner, A., & Schwameder, H. (2017). RegentK Improves the Gait Mechanics of Patients with Acute Anterior Cruciate Ligament Rupture Immediately after Application: Clinical Trial. *Complement Med Res*, 24(2), 90-96.
- Pühringer, M., Strutzenberger, G., Holzner, K., & Schwameder, H. (2017). Aktivität der Schultermuskulatur beim therapeutischen Klettern. *Sportphysio*, 3(17), 135-141.
- Pühringer, M., Strutzenberger, G., Leitl, D., Holzner, K., & Schwameder, H. (2017). Possibilities of altering arm and shoulder muscle activation in a static therapeutic climbing exercise through arm position, hand support and wall inclination. *Eur J Sport Sci*, 17(9), 1212-1219. doi:10.1080/17461391.2017.1356379
- Raschner, C., Kösters, A., Müller, E., Schwameder, H., Zallinger, G., & Niessen, W. (1999). Dynamische und kinematische Technikanalyse im Riesenslalom bei Weltklasseskirennläufern. *Spectrum der Sportwissenschaften*, 11(Suppl.), 57-64.
- Raschner, C., Müller, E., & Schwameder, H. (1997). Kinematische und dynamische Technikanalyse im Slalom als Grundlage für die Entwicklung skispezifischer Krafttrainingsgeräte und Krafttrainingsmethoden. *Ski-News*, 22, 11-16.
- Raschner, C., Müller, E., Zallinger, G., Kösters, A., & Schwameder, H. (1999). Development of a ski-specific training device for enhancement in quality of rehabilitation after knee injuries. *Österreichisches Journal für Sportmedizin*, 10. *European Congress on Sports Medicine*, 29(3), 11-12.
- Raschner, C., Müller, E., Zallinger, G., & Schwameder, H. (1996). Entwicklung eines skirennlaufspezifischen Krafttrainingsgerätes zur Steigerung der Trainingsqualität im Rehabilitationskonzept von Skirennläufern. *Österreichische Zeitschrift für Physikalische Medizin und Rehabilitation*, 6(4), 130-131.
- Raschner, C., Müller, E., Zallinger, G., & Schwameder, H. (1997). Entwicklung eines skilaufspezifischen Krafttrainingsgerätes zur Steigerung der Trainingsqualität im Rehabilitationskonzept von Skirennläufern. *Physikalische Sporthelkunde, Österreichische Zeitschrift für Physikalische Medizin und Rehabilitation*, 7(Suppl. 1), 75-78.
- Richter, A., Stein, T., Woll, A., Potthast, W., & Schwameder, H. (2011). Specific issues of vertical jumps as fundamental performance diagnostics tools. *Portuguese Journal of Sport Sciences*, 11, 35-38.
- Schnur, A., Schwameder, H., & Stadler, R. (2010). Biomechanik im Sportunterricht erfahrbar machen – „Vom Tun zum Verstehen“. *sportunterricht*, 59(7), 194-199.
- Schwameder, H. (1991). Ausdauerverbesserung durch Circuit-Training mit Musik. *Leibesübungen-Leibeserziehung*, 45(3), 28-35.
- Schwameder, H. (2003). Gelenkbelastungen beim Bergwandern. Analyse, Steuerung und Anwendungen. *NOEO – Das Salzburger Wissenschaftsmagazin*, 03, 44-47.
- Schwameder, H. (2004). Maßnahmen zur Reduktion von Gelenkbeschwerden beim Bergwandern. *Alpenvereinszeitschrift*(1).
- Schwameder, H. (2006). Lower extremity joint loading in level and graded walking. *J Biomech*, 39(1), 185.
- Schwameder, H. (2008). Biomechanics research in ski jumping – 1991-2006. *Sports Biomech*, 7(1), 114-136.
- Schwameder, H. (2009). Biomechanische Forschung im Skisprung - ein Überblick. *Spectrum der Sportwissenschaften*, 21(1), 68-95.
- Schwameder, H., Lindenhofer, E., & Müller, E. (2005). Effect of walking speed on lower extremity joint loading in graded ramp walking. *Sports Biomech*, 4(2), 227-243. doi:10.1080/14763140508522865
- Schwameder, H., & Müller, E. (1995). Biomechanische Beschreibung und Analyse der V-Technik im Skispringen. *Spectrum der Sportwissenschaft*, 7(1), 5-36.
- Schwameder, H., & Müller, E. (2001). Biomechanics in ski-jumping: A review. *Eur J Sport Sci*, 1(1), 1-16.
- Schwameder, H., & Müller, E. (2002). Angewandte Biomechanik im Leistungssport. Beispiele und Konzepte im Skispringen *NOEO-Das Salzburger Wissenschaftsmagazin*, 01, 30-33.
- Schwameder, H., Müller, E., Preßlmayr, J., & Raschner, C. (1996). Zur Wirkung von Dämpfungselementen im Laufband. *Österreichische Zeitschrift für Physikalische Medizin und Rehabilitation*, 6(4), 139.
- Schwameder, H., Müller, E., Preßlmayr, J., & Raschner, C. (1997). Zur Wirkung von Dämpfungselementen im Laufband. *Physikalische Sporthelkunde, Österreichische Zeitschrift für Physikalische Medizin und Rehabilitation*, 7(Suppl. 1), 67-70.

- Schwameder, H., & Ring, S. (2006). Fakten und Legenden. Nordic Walking auf dem Prüfstand – Eine Untersuchung zu Energiebilanz und Gelenkbelastung. *Nordic Sports Magazin*, 28-31.
- Schwameder, H., Roithner, R., & Müller, E. (2001). Energieverteilung auf die Gelenke der unteren Extremitäten beim Gehen auf verschiedenen geneigten Flächen. *Spectrum der Sportwissenschaften*, 98-105.
- Schwameder, H., Roithner, R., Müller, E., Niessen, W., & Raschner, C. (1999). Knee joint forces during downhill walking with hiking poles. *J Sports Sci*, 17(12), 969-978. doi:10.1080/026404199365362
- Schwameder, H., Roithner, R., Müller, E., Niessen, W., & Raschner, C. (1999). System zur Berechnung und Visualisierung von Kniegelenkskräften in Echtzeit. *Spectrum der Sportwissenschaft*, 11, Suppl, 65-70.
- Schwameder, H., Schilcher, P., & Ring, S. (2005). Energetische Aspekte im Tourenskilauf mit unterschiedlichen Bindungs-Schuh-Systemen. *Spectrum der Sportwissenschaften*, 17(1), 79-87.
- Seidel, I., Stein, T., Fühl, M., & Schwameder, H. (2011). Tennis im Schulsport – Begründung und Konzeption einer Unterrichtsreihe zur Einführung in das Tennisspiel im Sportunterricht. *sportunterricht*, 60(11), 338-343.
- Simonidis, C., Stein, T., Bauer, F., Fischer, A., Schwameder, H., & Seemann, W. (2009). Determining the principles of human motion by combining motion analysis and motion synthesis. *Proceedings of the IEEE-RAS International Conference on Humanoid Robots*, 317-322.
- Söser, K., & Schwameder, H. (2005). Eine dreidimensionale, kinematische Analyse des Standservice im Faustball. *Spectrum der Sportwissenschaften*, 17(1), 52-61.
- Spiegel, C., Strutzenberger, G., & Schwameder, H. (2018). Wirksamkeit eines stationär durchgeführten EMG-Biofeedbacktrainings der Knieextensoren bei Patienten mit totaler Knieendoprothese. *pt Zeitschrift für Physiotherapeuten*, 70(März), 87-94.
- Spörri, J., Kröll, J., Schwameder, H., & Müller, E. (2012). Turn characteristics of a top world class athlete in giant slalom – a case study assessing current performance prediction concepts. *Int J Sport Sci Coach*, 7(4), 647-659. doi:10.1260/1747-9541.7.4.647
- Spörri, J., Kröll, J., Schwameder, H., & Müller, E. (2018). The role of path length- and speed-related factors for the enhancement of section performance in alpine giant slalom. *Eur J Sport Sci*, 1-9. doi:10.1080/17461391.2018.1453870
- Spörri, J., Kröll, J., Schwameder, H., Schiefermüller, C., & Müller, E. (2012). Course setting and selected biomechanical variables related to injury risk in alpine ski racing: an explorative case study. *Br J Sports Med*, 46(15), 1072-1077. doi:10.1136/bjsports-2012-091425
- Stein, T., Simonidis, C., Fischer, A., Seemann, W., & Schwameder, H. (2011). Kinematic analysis of human goal directed movements. *International Journal of Computer Science in Sport*, 9(3), 28-41.
- Strutzenberger, G., Alexander, N., Bamboschek, D., Claas, E., Langhof, H., & Schwameder, H. (2017). Uphill walking: Biomechanical demand on the lower extremity of obese adolescents. *Gait Posture*, 54, 20-26. doi:10.1016/j.gaitpost.2017.02.013
- Strutzenberger, G., Brazil, A., Exell, T., Von Lieres und Wilkau, H., Davies, J. D., Willwacher, S., . . . Irwin, G. First and second step characteristics of amputee sprinters. *Int J Sports Physiol Perform*.
- Strutzenberger, G., Moore, J., Griffiths, H., Schwameder, H., & Irwin, G. (2016). Effects of gluteal kinesio-taping on performance with respect to fatigue in rugby players. *Eur J Sport Sci*, 16(2), 165-171. doi:10.1080/17461391.2015.1004372
- Strutzenberger, G., Richter, A., Lang, D., & Schwameder, H. (2011). Effect of body weight on kinetic and kinematic parameters in children ascending and descending stairs. *Gait Posture*, 34(1), 119-125.
- Strutzenberger, G., Wunsch, T., Kröll, J., Dastl, J., & Schwameder, H. (2014). Effect of chainring ovality on joint power during cycling at different workloads and cadences. *Sports Biomech*, 13(2), 97-108.
- Virmavirta, M., Isolehto, J., Komi, P., Brüggemann, G.-P., Müller, E., & Schwameder, H. (2005). Characteristics of the early flight phase in the Olympic ski jumping competition. *J Biomech*, 38(11), 2157-2163.
- Virmavirta, M., Isolehto, J., Komi, P., Schwameder, H., Pigozzi, F., & Massazza, G. (2009). Take-off analysis of the Olympic ski jumping competition (HS-106m). *J Biomech*, 42(8), 1095-1101. doi:10.1016/j.jbiomech.2009.02.026
- Wolfsegger, T., Rotaru, I., Schneider, A., Schwameder, H., & Aichner, F. (2011). Static posturography in selected Parkinson syndromes: quantitative analysis of postural control. *Nervenarzt*, 82(12), 1584-1589. doi:10.1007/s00115-011-3323-6

- Wolfsegger, T., Rotaru, I., Schwameder, H., Schneider, A., Topakian, R., & Aichner, F. (2009). Erhöhte Frequenzanteile <0.1 Hertz aus der Posturografie differenzieren zwischen der Progressiven Supranukleären Blickparese und dem idiopathischen Parkinson-Syndrom. *Akt Neurol*, *36*, 304-307.
- Wolfsegger, T., Rotaru, I., Topakian, R., Aichner, F., & Schwameder, H. (2011). Eine vergleichende biomechanische Ganganalyse zwischen dem Idiopathischen Parkinson-Syndrom und dem Normaldruckhydrozephalus. *Akt Neurol*, *38*, 1-6.
- Wolfsegger, T., Rotaru, I., Topakian, R., Pichler, R., Sonnberger, M., Aichner, F., & Schwameder, H. (2012). A biomechanical analysis of cyclical hand motor function: a pilot study in different Parkinsonian syndromes. *Nervenarzt*, *83*(6), 766-771. doi:10.1007/s00115-011-3464-7
- Wunsch, T., Alexander, N., Kröll, J., Stöggl, T., & Schwameder, H. (2017). Effects of a leaf spring structured midsole on joint mechanics and lower limb muscle forces in running. *PLoS One*, *12*, e0172287. doi:10.1371/journal.pone.0172287
- Wunsch, T., Kröll, J., Stöggl, T., & Schwameder, H. (2016). Effects of a structured midsole on spatio-temporal variables and running economy in overground running. *Eur J Sport Sci*, *17*(3), 303-309. doi:10.1080/17461391.2016.1253776
- Wunsch, T., Kröll, J., Stöggl, T., & Schwameder, H. (2017). Effects of a structured midsole on spatio-temporal variables and running economy in overground running. *Eur J Sport Sci*, *17*(3), 303-309. doi:10.1080/17461391.2016.1253776
- Wunsch, T., Kröll, J., Strutzenberger, G., & Schwameder, H. (2015). Biomechanical and metabolic effects of a leaf spring structured midsole in heel-toe running. *Footwear Science*.
- Wunsch, T., & Schwameder, H. (2015). Lauftechniken sportbiomechanisch analysieren. *Sportphysio*, *3*, 112-118. doi:DOI: 10.1055/s-005-29905

#### Book Section (111)

- Alexander, N., Christian, J., Jenny, H., Augustin, H., & Schwameder, H. (2013). A new pedal system measuring forces in three dimensions. In T.-Y. Shiang, W.-H. Ho, P. C. Huang, & C.-L. Tsai (Eds.), *Proceedings of the 31. International Symposium on Biomechanics in Sports* (pp. P02-08 ID129). Taipei - Taiwan.
- Alexander, N., & Schwameder, H. (2014). Analysis of muscle forces during downhill walking. In K. Sato, W. A. Sands, & S. Mizuguchi (Eds.), *eProceedings of the 32nd Conference of the International Society of Biomechanics in Sport* (Vol. 1, pp. 199-202). Johnson City, TN: 2014 ISBS Organizing Committee.
- Alexander, N., & Schwameder, H. (2016). Lower limb joint and muscle forces during sloped walking at self-selected speed. In *International Society of Biomechanics Conference Proceedings* (pp. 156-159). Tsukuba, Japan: International Society of Biomechanics in Sports.
- Alexander, N., Strutzenberger, G., & Schwameder, H. (2015). Effects of a manual therapy on tibiofemoral joint forces in patients with acute anterior cruciate ligament rupture. In F. Colloud, M. Domalain, & T. Monnet (Eds.), *33rd International Conference on Biomechanics in Sports* (pp. 1223-1226). Poitiers, France.
- Alexander, N., Strutzenberger, G., & Schwameder, H. (2017). The use of the gradual yielding mechanism during downhill walking in transfemoral amputee gait - a case study. In W. Potthast, A. Niehoff, & S. David (Eds.), *International Society of Biomechanics in Sports Conference Proceedings* (Vol. 35, pp. 859-862). Cologne, Germany.
- Burtscher, M., Raschner, C., Zallinger, G., Schwameder, H., & Müller, E. (2001). Comparison of cardiorespiratory and metabolic responses during conventional and carving skiing. In E. Müller, H. Schwameder, C. Raschner, L. Stefan, & E. Kornexl (Eds.), *Science and Skiing II* (pp. 552-565). Hamburg - Germany: Verlag Dr. Kovac.
- Federolf, P., Rauscher, E., Scheiber, P., & Schwameder, H. (2006). Does a skier's position on the ski affect the results of gliding tests used to assess ski-snow friction? In H. Schwameder, G. Strutzenberger, V. Fastenbauer, S. Lindinger, & E. Müller (Eds.), *Proceedings of the 24. International Symposium on Biomechanics in Sports* (Vol. 2, pp. 554-557). Salzburg - Austria: Salzburg University Press.

- Fischer, A., Do, M., Asfour, T., Dillmann, R., & Schwameder, H. (2011). Personenerkennung beim Gehen – ein Vergleich von Künstlichen Neuronalen Netzen und Support Vector Machines. In D. Link & J. Wiemeyer (Eds.), *Sportinformatik trifft Sporttechnologie* (pp. 81-85). Hamburg: Czwalina.
- Fischer, A., Gehrig, D., Stein, T., Schultz, T., & Schwameder, H. (2009). Recognition and estimation of human locomotion with Hidden Markov Models. In D. Harrison, R. Anderson, & I. Kenny (Eds.), *Scientific Proceedings of the 27th International Conference on Biomechanics in Sports, Limerick* (pp. 112). Limerick: University of Limerick.
- Fischer, A., Gehrig, D., Stein, T., Schultz, T., & Schwameder, H. (2010). Training und Erkennung mit Hidden Markov Modellen bei unterschiedlichen Geh-/Laufgeschwindigkeiten. In V. Wank & H. Heger (Eds.), *Biomechanik – Grundlagenforschung und Anwendung* (pp. 76-80). Hamburg: Czwalina.
- Fischer, A., Stein, T., Gehrig, D., Schultz, T., & Schwameder, H. (2009). Bewegungserkennung mit Hidden Markov Modellen. In S. Baumgärtner, F. Hänsel, & J. Wiemeyer (Eds.), *Informations- und Kommunikationstechnologien in der Sportmotorik - Abstractband zur 11. Tagung der dvs-Sektion Sportmotorik* (pp. 106-109). Hamburg: Druckerei der Techniker Krankenkasse.
- Fritz, J., Schwameder, H., & Lindinger, S. J. (2016). Correlation between strength related parameters and ski-jumping performance in junior ski jumpers. In A. Hakkarainen, V. Linnamo, & S. Lindinger (Eds.), *Science and Nordic Skiing III* (pp. 147-154). Jyväskylä, Finland: Jyväskylä University Printing House.
- Fritz, J., Strutzenberger, G., & Schwameder, H. (2013). Force related parameters and laterality in junior ski jumpers. In E. Müller, S. Lindinger, T. Stöggl, & J. Pfüsterschmied (Eds.), *Science and Skiing VI - Proceedings of the 6<sup>th</sup> International Congress on Science and Skiing (ICSS)* (pp. 465-478). Salzburg, Austria: Salzburg University Press.
- Gehrig, D., Stein, T., Fischer, A., Schwameder, H., & Schultz, T. (2010). Towards semantic segmentation of human motion sequences. In R. Dillmann, J. Beyerer, U. Hanebeck, & T. Schultz (Eds.), *KI 2010: Advances in Artificial Intelligence - 33rd Annual German Conference on AI* (pp. 436-443). Berlin - Germany: Springer.
- Greimel, F., Virmavirta, M., & Schwameder, H. (2009). Kinematic analysis of the landing phase in ski jumping. In E. Müller, L. Stefan, & T. Stöggl (Eds.), *Science and skiing IV* (pp. 721-727). Oxford - UK: Meyer & Meyer Sport.
- Groh, B., Fritz, J., Deininger, M., Schwameder, H., & Eskofier, B. (2018). Unobtrusive and Wearable Landing Momentum Estimation in Ski Jumping with Inertial-Magnetic Sensors. In *15th International Conference on Wearable and Implantable Body Sensor Networks (BSN)*. Las Vegas, USA.
- Haudum, J., Wagner, H., Schwameder, H., & Haudum, A. (2006). Comparative kinematic analysis of similarities and differences in serve and groundstrokes between wheelchair and standing tennis players. In H. Schwameder, G. Strutzenberger, V. Fastenbauer, S. Lindinger, & E. Müller (Eds.), *Proceedings of the 24. International Symposium on Biomechanics in Sports (ISBS)* (pp. 775-778). Salzburg, Austria: University of Salzburg.
- Kaps, P., Schwameder, H., & Engstler, C. (1997). Inverse dynamic analysis of take-off in ski-jumping. In E. Müller, H. Schwameder, E. Kornexl, & C. Raschner (Eds.), *Science and Skiing* (pp. 72-87). London-Weinheim-New York-Tokyo-Melbourne-Madras.
- Klous, M., Müller, E., & Schwameder, H. (2007). Lower extremity joint loading in carved ski and snowboard turns. In M. H.-J. & M. Chagas (Eds.), *Proceedings of the 25. International Symposium on Biomechanics in Sports* (pp. 91-94). Ouro Preto - Brazil: Federal University of Minas Gerais.
- Klous, M., Schwameder, H., & Müller, E. (2004). Experimental setup to collect input data for calculating loading on the lower extremities in skiing and snowboarding. In M. Lamontagne, G. Robertson, & H. Sveistrup (Eds.), *Proceedings of the 22. Symposium of the International Society of Biomechanics in Sports* (pp. 383-386). Ottawa - Canada.
- Klous, M., Schwameder, H., & Müller, E. (2006). The accuracy of 3D kinetic and kinematic data used for joint loading analysis in skiing and snowboarding. In H. Schwameder, G. Strutzenberger, V. Fastenbauer, S. Lindinger, & E. Müller (Eds.), *Proceedings of the 24. International Symposium on Biomechanics in Sports* (Vol. 2, pp. 553). Salzburg - Austria: Salzburg University Press.
- Kröll, J., Fritz, J., & Schwameder, H. (2017). The 2D Trochanter Tracking method: A low cost alternative when assessing vertical Power-Force-Velocity Profiles? In *35rd International Conference on Biomechanics in Sports*. Cologne, Germany.

- Kröll, J., Spörri, J., Fasel, B., Müller, E., & Schwameder, H. (2015). Type of muscle control in elite alpine skiing – Is it still the same than in 1995? In E. Müller, J. Kröll, S. Lindinger, J. Pfusterschmied, & T. Stöggl (Eds.), *Science and Skiing VI* (pp. 56-64). UK: Meyer & Meyer Sport.
- Kröll, J., Spörri, J., Kandler, C., Fasel, B., Müller, E., & Schwameder, H. (2015). Kinetic and kinematic comparison of alpine ski racing disciplines as a base for specific conditioning regimes. In F. Colloud, M. Domalain, & T. Monnet (Eds.), *33rd International Conference on Biomechanics in Sports* (pp. 1401-1404). Poitiers, France.
- Kröll, J., Stricker, G., Mayerhofer, K., Schwameder, H., & Müller, E. (2004). Ski Gliding Technique on a quasi static laboratory device – comparison with the situation on snow and possibilities of performance enhancement. In M. Lamontagne, D. Gordon, E. Robertson, & H. Sveistrup (Eds.), *22nd International Symposium on Biomechanics in Sports* (pp. 293-296). Ottawa.
- Kurz, G., Lang, D., Richter, A., & Schwameder, H. (2009). Reliability of drop jumps variation in performance diagnostics. In D. Harrison, R. Anderson, & I. Kenny (Eds.), *Scientific Proceedings of the 27th International Conference on Biomechanics in Sports, Limerick* (pp. 544). Limerick: University of Limerick.
- Lindinger, S., Müller, E., Niessen, W., Schwameder, H., & Kösters, A. (1999). Biodynamische und biokinematische Aspekte zur Idealtechnik Beinabstoß bei modernen Skatingtechniken im Skilanglaufrennsport. In J. Wiemeyer (Ed.), *Forschungsmethodologische Aspekte von Bewegung, Motorik und Training im Sport* (pp. 112-118). Hamburg, Germany: Verlag Czwilina.
- Lindinger, S., Müller, E., Niessen, W., Schwameder, H., & Kösters, A. (2001). Comparative biomechanical analysis of modern skating techniques and special skating imitation drills on world class level. In E. Müller, C. Raschner, H. Schwameder, S. Lindinger, & E. Kornexl (Eds.), *Science and Skiing II - Proceedings of the 2<sup>nd</sup> International Congress on Science and Skiing (ICSS)* (pp. 262-286). Hamburg, Germany: Verlag Dr. Kovac.
- Lindorfer, J., Kröll, J., & Schwameder, H. (2017). Detection of biomechanical adaptation in treadmill running. In *35rd International Conference on Biomechanics in Sports*. Cologne, Germany.
- Lüthi, A., Federolf, P., Fauve, M., Oberhofer, K., Rhyner, H. U., Ammann, W., . . . Müller, E. (2005). Determination of forces in carving using three different methods. In E. Müller, D. Bacharach, R. Klika, L. Stefan, & H. Schwameder (Eds.), *Science and Skiing III* (pp. 96-106). Oxford - UK: Meyer & Meyer Sport.
- Müller, E., Lindinger, S., Raschner, C., & Schwameder, H. (2001). Science and Skiing 1996 – 2000. In E. Müller (Ed.), *Skillauf und Wissenschaft* (pp. 1-64). Innsbruck: Österreichischer Schiverband.
- Müller, E., Lindinger, S., Sattlecker, G., Schwameder, H., & Stöggl, T. (2007). The role of biomechanics in optimizing performance in Nordic skiing. In V. Linnamo, P. Komi, & E. Müller (Eds.), *Science and Nordic Skiing - Proceedings of the 1<sup>st</sup> International Congress on Science and Nordic Skiing (ICSNS)* (pp. 13-22). Aachen: Meyer & Meyer Sport.
- Müller, E., Raschner, C., & Schwameder, H. (1999). The demand profile of modern high-performance training. In E. Müller, F. Ludescher, & G. Zallinger (Eds.), *Science in Elite Sport* (pp. 11-31). London: FN Spon.
- Müller, E., Schiefermüller, C., Kröll, J., & Schwameder, H. (2005). Skiing with Carved Skis – what is new. In E. Müller, D. Bacharach, R. Klika, S. Lindinger, & H. Schwameder (Eds.), *Science and Skiing III- Proceedings of the 3<sup>rd</sup> International Congress on Science and Skiing (ICSS)* (pp. 15-23). Aachen: Meyer & Meyer Sport.
- Müller, E., Schwameder, H., Kröll, J., & Lindinger, S. (2004). Biomechanics in Winter Sports. In M. Lamontagne, D. Gordon, E. Robertson, & H. Sveistrup (Eds.), *22nd International Symposium on Biomechanics in Sports (ISBS)* (pp. 275-276). Ottawa.
- Müller, E., Schwameder, H., & Niessen, W. (1995). Zur Funktion von Wanderstöcken beim Bergabgehen. In Ö. K. f. a. Sicherheit (Ed.), *Sicherheit im Bergland, Jahrbuch 95* (pp. 167-178). Innsbruck.
- Müller, E., Schwameder, H., Raschner, C., & Kröll, J. (2004). Messplätze und Messplatztraining in Wintersportarten. In J. Krug & H.-J. Minow (Eds.), *Messplatztraining* (Vol. 10, pp. 84-96). St. Augustin: Academia.
- Müller, E., Zallinger, G., Schwameder, H., & Sandmayr, A. (1995). Zur Trainierbarkeit des zyklischen Zeitprogramms im motorischen Schnelligkeitstraining. In J. Krug & H. Minow (Eds.), *Sportliche Leistung und Training* (pp. 269-274). Sankt Augustin.
- Niessen, W., Müller, E., Raschner, C., & Schwameder, H. (1997). Structural dynamic analysis of alpine skis during turns. In E. Müller, H. Schwameder, E. Kornexl, & C. Raschner (Eds.), *Science and Skiing - Proceedings of the 1<sup>st</sup> International Congress on Science and Skiing (ICSS)* (pp. 216-225). London: E & FN Spon.
- Niessen, W., Müller, E., Schwameder, H., Wimmer, M., & Riepler, B. (1998). Force and moment measurements during alpine skiing depending on height position. In H. Riehle & M. Vieten (Eds.), *Proceedings of the XVI Int. Symposium on Biomechanics in Sports* (pp. 544-547). Konstanz.

- Nigg, B., Schwameder, H., & Stefanyshyn, D. (2001). The effect of ski binding position on performance and comfort in skiing. In E. Müller, H. Schwameder, C. Raschner, S. Lindinger, & E. Kornexl (Eds.), *Science and Skiing II* (pp. 3-13). Hamburg - Germany: Verlag Dr. Kovac.
- Raschner, C., Kösters, A., Müller, E., Schwameder, H., Zallinger, G., & Niessen, W. (1999). Dynamische und kinematische Technikanalyse im Riesenslalom bei Weltklasseskirennläufern. In J. Wiemeyer (Ed.), *Forschungsmethodologische Aspekte von Bewegung, Motorik und Training im Sport* (pp. 106-111). St. Augustin.
- Raschner, C., Müller, E., & Schwameder, H. (1996). Kinematische und dynamische Technikanalyse im Slalom - Vergleich ausgewählter Parameter zwischen Spitzen- und Nachwuchsskirennläufern. In E. Müller & H. Schwameder (Eds.), *Aspekte der Sportwissenschaft* (pp. 211-221). Salzburg: Universität Salzburg.
- Raschner, C., Müller, E., & Schwameder, H. (1997). Kinematic and kinetic analysis of slalom turns as a basis for the development of specific training methods to improve strength and endurance. In E. Müller, H. Schwameder, E. Kornexl, & C. Raschner (Eds.), *Science and Skiing - Proceedings of the 1<sup>st</sup> International Congress on Science and Skiing (ICSS)* (pp. 251-261). London: E & FN Spon.
- Raschner, C., Müller, E., Schwameder, H., Haid, C., & Männel, D. (1995). Zum Einfluss anthropometrischer Merkmale auf die Wettkampfleistung im Slalom bei jugendlichen Skirennläufern. In J. Krug & H. Minow (Eds.), *Sportliche Leistung und Training* (pp. 341-346). Sankt Augustin.
- Richter, A., Jekauc, D., Woll, A., & Schwameder, H. (2010). Effects of age, gender and activity level on counter-movement jump. In R. Jensen, W. Ebben, E. Petushek, C. Richter, & K. Roemer (Eds.), *Proceedings of the 28. International Conference on Biomechanics in Sports* (pp. 266-269). Marquette: Northern Michigan University.
- Richter, A., Lang, D., Strutzenberger, G., & Schwameder, H. (2009). Effect of sport activity on counter movement jumps parameters in juvenile students. In D. Harrison, R. Anderson, & I. Kenny (Eds.), *Scientific Proceedings of the 27th International Conference on Biomechanics in Sports, Limerick* (pp. 205). Limerick: University of Limerick.
- Richter, A., Stein, T., Woll, A., Potthast, W., & Schwameder, H. (2011). Specific issues of vertical jumps as fundamental performance diagnostics tools. In J. P. Vilas-Boas, L. Machado, K. Kim, & A. Veloso (Eds.), *Proceedings of the 29. International Symposium on Biomechanics in Sports* (pp. 35-38). Porto - Portugal: University of Porto.
- Roithner, R., Schwameder, H., & Müller, E. (2000). Determination of optimal filter parameters for filtering kinematic walking data using butterworth low pass filter. In Y. Hong & D. Johns (Eds.), *Proceedings of the 18. International Symposium on Biomechanics in Sports* (pp. 982). Hong-Kong - China.
- Roithner, R., Schwameder, H., Müller, E., & Niessen, W. (2000). Comparison of knee joint forces during downhill walking with and without hiking poles. In N. Messenger, W. Patterson, & D. Brook (Eds.), *The science of climbing and mountaineering*. Leeds: Human Kinetics Software.
- Scheiber, P., Schwameder, H., & Müller, E. (2006). Characteristic of the force application point - a method to identify learning processes in alpine skiing? In H. Schwameder, G. Strutzenberger, V. Fastenbauer, S. Lindinger, & E. Müller (Eds.), *Proceedings of the 24. International Symposium on Biomechanics in Sports* (Vol. 2, pp. 564-567). Salzburg, Austria: University of Salzburg.
- Schnur, A., & Schwameder, H. (2016). Praxisorientierte Biomechanik im Sportunterricht - Vom Tun zum Verstehen. In V. Oesterhelt & G. Amesberger (Eds.), *Jahrestagung der Deutschen Gesellschaft für Erziehungswissenschaft-Kommission Sportpädagogik* (pp. 53-54). Salzburg, Austria: Feldhaus Edition Czwalina.
- Schöllhorn, W., Müller, E., Lindinger, S., Raschner, C., Schwameder, H., & Benko, U. (2001). Individuality and generality in ski turn techniques. In E. Müller, H. Schwameder, C. Raschner, S. Lindinger, & E. Kornexl (Eds.), *Science and Skiing II* (pp. 69-83). Hamburg - Germany: Verlag Dr. Kovac.
- Schwameder, H. (1993). Dreidimensionale biokinematische Bewegungsanalyse der Absprung- und ersten Flugphase im Skispringen. In E. Kornexl & W. Nachbauer (Eds.), *Bewegung Sport Forschung, Symposiumsbericht 25 Jahre Sportwissenschaften in Innsbruck* (pp. 379-401). Innsbruck - Austria
- Schwameder, H. (2003). Tourenstöcke am Berg – Hilfe oder Hindernis? In Ö. K. f. A. Sicherheit (Ed.), *Sicherheit im Bergland, Jahrbuch 03* (pp. 30-34). Innsbruck - Austria.



- Schwameder, H. (2004). Kniegelenkbelastungen beim Bergwandern. Gibt es sinnvolle Maßnahmen zu deren Reduktion? In Ö. K. f. A. Sicherheit (Ed.), *Sicherheit im Bergland, Jahrbuch 04* (pp. 107-113). Innsbruck - Austria.
- Schwameder, H. (2007). Current and future aspects of ski-jumping biomechanics. In V. Linnamo, P. Komi, & E. Müller (Eds.), *Science and Nordic Skiing - Proceedings of the 1<sup>st</sup> International Congress on Science and Nordic Skiing (ICSNS)* (pp. 225-236). Oxford - UK: Meyer & Meyer Sport.
- Schwameder, H. (2008). Aspects and challenges of applied sport biomechanics research. In Y.-H. Kwon, J. Shim, J. K. Shim, & I. Shin (Eds.), *Proceedings of the 26. International Symposium on Biomechanics in Sports* (pp. 25-28). Seoul - Korea: Korean Society of Biomechanics.
- Schwameder, H. (2009). Dynamometrie. In A. Gollhofer & E. Müller (Eds.), *Handbuch Sportbiomechanik* (pp. 104-119). Schorndorf: Hofmann.
- Schwameder, H. (2009). Fortbewegung auf Schnee: Skisprung. In A. Gollhofer & E. Müller (Eds.), *Handbuch Sportbiomechanik* (ed., pp. 419-434). Schorndorf: Hofmann.
- Schwameder, H. (2009). Kinemetrie. In A. Gollhofer & E. Müller (Eds.), *Handbuch Sportbiomechanik* (pp. 88-103). Schorndorf: Hofmann.
- Schwameder, H. (2012). Challenges and issues in ski jumping biomechanics. In E. Müller, S. Lindinger, & T. Stöggli (Eds.), *Science and Skiing V - Proceedings of the 5<sup>th</sup> International Congress on Science and Skiing (ICSS)* (pp. 28-37). UK: Meyer & Meyer Sport.
- Schwameder, H. (2012). Conceptual aspects of biomechanics in ski jumping. In A. Hakkarainen, V. Linnamo, & S. Lindinger (Eds.), *Science and Nordic Skiing II* (pp. 173-181). Vuokatti.
- Schwameder, H. (2014). Concepts in ski jumping biomechanics and potential transfer to other sports. In K. Sato, W. A. Sands, & S. Mizuguchi (Eds.), *eProceedings of the 32nd Conference of the International Society of Biomechanics in Sport* (pp. 10-13). Johnson City, Tennessee, USA: 2014 ISBS Organizing Committee.
- Schwameder, H., Alexander, N., Hailing, R., & Strutzenberger, G. (2013). Pedal forces during cycling in patients with acute unilateral ACL rupture. In T.-Y. Shiang, W.-H. Ho, P. C. Huang, & C.-L. Tsai (Eds.), *Proceedings of the 31. International Symposium on Biomechanics in Sports* (pp. A2-3 ID238). Taipei, Taiwan: National Taiwan Normal University.
- Schwameder, H., Alexander, N., Ofner, M., & Strutzenberger, G. (2015). Effects of RegentK on motor behavior in ACL patients. In A. Arampatzis, F. Mersmann, S. Bohm, & R. Marzilger (Eds.), *Active Health: Bewegung ist gesund* (pp. 127-133). Hamburg: Feldhaus Edition Czwalina.
- Schwameder, H., Alt, W., Gollhofer, A., & Stein, T. (2013). Struktur sportlicher Bewegung – Sportbiomechanik. In A. Güllich & M. Krüger (Eds.), *Das Lehrbuch für das Sportstudium* (1 ed., pp. 123-169). Berlin Heidelberg: Springer Spektrum.
- Schwameder, H., Andress, M., Graf, E., & Strutzenberger, G. (2015). Validation of an IMU system (Gait-up) to identify gait parameters in normal and induces limping walking conditions. In F. Colloud, M. Domalain, & T. Monnet (Eds.), *33rd International Conference on Biomechanics in Sports* (pp. 1330-1333). Poitiers, France.
- Schwameder, H., Burgstaller, R., Roithner, R., & Müller, E. (2004). Visualisierung von Kniegelenkskräften beim Gehen auf verschiedenen geneigten Ebenen. In H. Riehle (Ed.), *Biomechanik als Anwendungsforschung, 6. Symposium der dvs-Sektion Biomechanik, Konstanz. Bd. 132 der Schriften der Deutschen Vereinigung für Sportwissenschaft* (pp. 241-248). Hamburg - Germany: Czwalina.
- Schwameder, H., Kraft, S., & Alexander, N. (2017). Lower extremity muscle activities and gait kinematics in hiking using trekking shoes and high-cuff hiking boots. In W. Potthast, A. Niehoff, & S. David (Eds.), *Proceedings of the 35th International Conference on Biomechanics in Sports* (pp. 203-205). Cologne, Germany: International Society of Biomechanics in Sports.
- Schwameder, H., Lindenhofer, E., & Müller, E. (2002). Knee joint loading in graded walking as a function of step length and step frequency. In K. Gianikellis (Ed.), *Scientific proceedings of the 20. International Symposium on Biomechanics in Sports* (pp. 397-400). Cáceres - Spain.
- Schwameder, H., & Lindorfer, J. (2016). Effect of laterally moveable pedals (BIUS) on kinematics, pedal forces and muscle activity in recreational cycling. In *34th International Conference on Biomechanics in Sports*. Tsukuba, Japan: International Society of Biomechanics in Sports.

- Schwameder, H., & Müller, E. (2000). Biomechanische Grundlagen und Aspekte zu trainingspezifischen Konzeptionen im Skispringen. In E. Müller, S. Lindinger, R. Christian, & H. Schwameder (Eds.), *Skilauf und Wissenschaft* (pp. 65-91). Innsbruck - Austria.
- Schwameder, H., & Müller, E. (2001). Biomechanics in ski-jumping – A review. In E. Müller, M. Dimitriou, & P. Komi (Eds.), *Proceedings of the IOC Medical Commission Symposium 'Current Issues on Biomechanics of Ski-jumping'* (pp. 42-57). Salzburg - Austria.
- Schwameder, H., Müller, E., Lindenhofer, E., De Monte, G., Potthast, W., Brüggemann, G.-P., . . . Komi, P. (2005). Kinematic characteristics of the early flight phase in ski-jumping. In E. Müller, D. Bacharach, R. Klika, L. Stefan, & H. Schwameder (Eds.), *Science and Skiing III* (pp. 381-391). Oxford - UK: Meyer & Meyer Sport.
- Schwameder, H., Müller, E., Niessen, W., & Raschner, C. (1999). Belastungsänderungen im Kniegelenk mit und ohne Verwendung von Tourenstöcken beim Bergabgehen. In V. Zschorlich (Ed.), *Prävention und Rehabilitation des Bewegungsapparates* (pp. 265-272). Hamburg: Czwalina.
- Schwameder, H., Müller, E., Niessen, W., Raschner, C., & Eder, E. (1996). Bodenreaktionskräfte, Kniemomente und Kniegelenkskräfte bei Verwendung von Tourenstöcken beim Bergabgehen. In E. Müller & H. Schwameder (Eds.), *Aspekte der Sportwissenschaft* (pp. 169-178). Salzburg: Institut für Sportwissenschaft.
- Schwameder, H., Müller, E., Raschner, C., & Brunner, F. (1997). Aspects of technique-specific strength training in ski-jumping. In E. Müller, H. Schwameder, E. Kornexl, & C. Raschner (Eds.), *Science and Skiing - Proceedings of the 1<sup>st</sup> International Congress on Science and Skiing (ICSS)* (pp. 309-319). London: E & FN Spon.
- Schwameder, H., Müller, E., & Roithner, R. (2001). Energetics of the lower extremity joints during graded walking on a slope compared with ascending and descending stairs. In J. Blackwell (Ed.), *Proceedings of the 19. International Symposium on Biomechanics in Sports* (pp. 184-187). San Francisco - USA.
- Schwameder, H., Müller, E., Schiefermüller, C., & Kröll, J. (2004). Applied biomechanics in alpine skiing – past, present and future issues. In M. Lamontagne, G. Robertson, & H. Sveistrup (Eds.), *Proceedings of the 22. Symposium of the International Society of Biomechanics in Sports (ISBS)* (pp. 305-308). Ottawa - Canada.
- Schwameder, H., Müller, E., Stöggl, T., & Lindinger, S. (2008). Methodology in alpine and nordic skiing biomechanics. In Y. Hong & R. Bartlett (Eds.), *Handbook of biomechanics and human movement science* (pp. 182-196). London - UK: Routledge.
- Schwameder, H., Nigg, B., von Tscharnner, V., & Stefanyshyn, D. (2001). The effect of binding position on kinetic variables in alpine skiing. In E. Müller, H. Schwameder, C. Raschner, L. Stefan, & E. Kornexl (Eds.), *Science and Skiing II* (pp. 43-54). Hamburg - Germany: Verlag Dr. Kovac.
- Schwameder, H., Raschner, C., & Müller, E. (1995). Dreidimensionale kinematische Analyse der Absprung- und ersten Flugphase im Skispringen. In J. Krug & H. Minow (Eds.), *Sportliche Leistung und Training* (pp. 199-204). Sankt Augustin.
- Schwameder, H., & Ring, S. (2005). Belastungen in den Gelenken der unteren Extremitäten beim Nordic Walking und Laufen. In G. E. & M. S. (Eds.), *Nordic Walking – Eine Innovation mit Nachhaltigkeit. Kongressband zum 3. Internationalen Nordic-Walking-Kongress* (pp. 25-31). Bad Tatzmannsdorf - Austria.
- Schwameder, H., Roithner, R., & Müller, E. (2000). Change of kinetic lower extremity joint variables during uphill and downhill walking on differently inclined slopes. In Y. Hong & D. Johns (Eds.), *Proceedings of the 18. International Symposium on Biomechanics in Sports* (pp. 983). Hong Kong - China.
- Schwameder, H., Roithner, R., Müller, E., Niessen, W., & Raschner, C. (1998). Measuring device for on-line calculating and screening of knee joint forces. In H. Riehle & M. Vieten (Eds.), *Proceedings of the XVI Int. Symposium on Biomechanics in Sports* (pp. 578-581). Konstanz.
- Schwameder, H., Schaufler, D., Strutzenberger, G., & Alexander, N. (2013). Effects of supplementary mats on ground reaction forces and neuromuscular pre-activation in gymnastics landings. In T.-Y. Shiang, W.-H. Ho, P. C. Huang, & C.-L. Tsai (Eds.), *Proceedings of the 31. International Symposium on Biomechanics in Sports* (pp. P04- ID235). Taipei, Taiwan: National Taiwan Normal University.
- Schwameder, H., Schilcher, P., Lindenhofer, E., & Ring, S. (2004). Mechanical and metabolic energy aspects of different binding-boot systems in ski-touring. In M. Lamontagne, G. Robertson, & H. Sveistrup (Eds.), *Proceedings of the 22. Symposium of the International Society of Biomechanics in Sports* (pp. 588-591). Ottawa - Canada.

- Schwameder, H., Strutzenberger, G., Wunsch, T., & Kröll, J. (2012). Knee joint forces in cycling at two workloads with circular and non-circular chainrings. In E. Bradshaw, A. Burnett, & P. Hume (Eds.), *Proceedings of the 30. International Symposium on Biomechanics in Sports* (pp. 346-349). Melbourne - Australia: Australian Catholic University.
- Simonidis, C., Stein, T., Fischer, A., Bauer, F., Schwameder, H., & Seemann, W. (2010). MkdTools: Ein Mehrkörperalgorithmus zur Analyse und Synthese menschlicher Bewegungen. In V. Wank & H. Heger (Eds.), *Biomechanik – Grundlagenforschung und Anwendung* (pp. 102-110). Hamburg: Czwalina.
- Söser, K., & Schwameder, H. (2005). A three-dimensional kinematic analysis of the stand und jump serve in fistbal. In Q. Wang (Ed.), *Proceedings of the 23. Symposium of the International Society of Biomechanics in Sports* (pp. 160-163). Beijing - China.
- Stein, T., Fischer, A., Boesnach, I., Gehrig, D., Köhler, H., & Schwameder, H. (2008). Kinematische Analyse menschlicher Alltagsbewegungen für die Mensch-Maschine-Interaktion. In J. Edelmann-Nusser, E. Moritz, V. Senner, & K. Witte (Eds.), *Sporttechnologie zwischen Theorie und Praxis V* (pp. 49-58). Aachen: Shaker
- Stein, T., Seidel, I., Basler, B., & Schwameder, H. (2008). Techniktraining mit Anfängern – Eine Fallstudie zum Erlernen des Tennisaufschlags. In A. Woll, W. Klöckner, M. Reichmann, & M. Schlag (Eds.), *Sportspielkulturen erfolgreich gestalten – Von der Trainerbank bis in die Schulklasse* (pp. 171-174). Hamburg: Czwalina.
- Stein, T., Simonidis, C., Fischer, A., Bauer, F., Seemann, W., & Schwameder, H. (2010). Trajektoriengenerierung mit Hilfe von Optimierungsmodellen. In V. Wank & H. Heger (Eds.), *Biomechanik – Grundlagenforschung und Anwendung* (pp. 257-263). Hamburg: Czwalina.
- Stein, T., Simonidis, C., Fischer, A., Seemann, W., & Schwameder, H. (2009). Komputationale Modelle der Bewegungsplanung. In S. Baumgärtner, F. Hänsel, & J. Wiemeyer (Eds.), *Informations- und Kommunikationstechnologien in der Sportmotorik - Abstractband zur 11. Tagung der dvs-Sektion Sportmotorik* (pp. 106-109). Hamburg: Druckerei der Techniker Krankenkasse.
- Stein, T., Simonidis, C., Seemann, W., & Schwameder, H. (2010). A computational model of human movement coordination In R. Dillmann, J. Beyerer, U. Hanebeck, & T. Schultz (Eds.), *KI 2010: Advances in Artificial Intelligence - 33rd Annual German Conference on AI, Vol. 6359 of Springer Lecture Notes in AI* (pp. 23-32). Berlin: Springer.
- Stein, T., Simonidis, C., Seemann, W., & Schwameder, H. (2011). Optimierungsprinzipien in der Bewegungskontrolle. In D. Link & J. Wiemeyer (Eds.), *Sportinformatik trifft Sporttechnologie* (pp. 96-100). Hamburg: Czwalina.
- Strutzenberger, G., Braig, M., Sell, S., & Schwameder, H. (2011). Effect of brace type on knee joint laxity and functional achievements for patients with ACL ruptured knees. In J. P. Vilas-Boas, L. Machado, K. Kim, & A. Veloso (Eds.), *Proceedings of the 29. International Conference on Biomechanics in Sports* (pp. 675-678). Porto: University of Porto, Portugal.
- Strutzenberger, G., Brazil, A., von Lieres und Wilkau, H., Davies, J. D., Funken, J., Müller, R., . . . Irwin, G. (2016). 1st and 2nd step characteristics proceeding the sprint start in amputee sprinting. In *International Society of Biomechanics Conference Proceedings, Tsukuba, Japan* (Vol. 34, pp. 964–967).
- Strutzenberger, G., Dengg, N., Auernigg, A., & Schwameder, H. (2018). Differences between forces measured via 1D prssure insoles and 3D force plates during downhill gait. In P. Hume (Ed.), *International Society of Biomechanics in Sports Conference Proceedings* (Vol. 36). Auckland, New Zealand.
- Strutzenberger, G., Herzog, M., Fischer, A., Stein, T., Richter, A., & Schwameder, H. (2007). Kinematic and dynamic analysis of landings in vaulting. In H.-J. Menzel & M. Chagas (Eds.), *Proceedings of the 25. International Symposium on Biomechanics in Sports* (pp. 684). Ouro Preto: Federal University of Minas Gerais.
- Strutzenberger, G., Leitl, D., Pühringer, M., & Schwameder, H. (2017). Releasing one hand during therapeutic climbing exercises affects the activation of arm and shoulder muscles in healthy individuals In W. Potthast, A. Niehoff, & S. David (Eds.), *International Society of Biomechanics in Sports Conference Proceedings* (Vol. 35, pp. 919-922). Cologne, Germany.
- Strutzenberger, G., Moore, J., Griffiths, H., Schwameder, H., & Irwin, G. (2013). Effects of kinesio-taping on performance with respect to fatigue in rugby players: a pilot study. In T.-Y. Shiang, W.-H. Ho, P. C. Huang, & C.-L. Tsai (Eds.), *Proceedings of the 31. International Symposium on Biomechanics in Sports* (pp. A5-2 ID131). Taipei, Taiwan: National Taiwan Normal University.

- Strutzenberger, G., Rasp, B., & Schwameder, H. (2007). Effect of walking speed and pole length on kinematics and dynamics in Nordic Walking. In M. H.-J. & M. Chagas (Eds.), *Proceedings of the 25. International Symposium on Biomechanics in Sports* (pp. 260-263). Ouro Preto - Brazil: Federal University of Minas Gerais.
- Strutzenberger, G., Richter, A., Lang, D., & Schwameder, H. (2009). Influence of body weight on joint loading in stair climbing. In D. Harrison, R. Anderson, & I. Kenny (Eds.), *Scientific Proceedings of the 27th International Conference on Biomechanics in Sports, Limerick* (pp. 758). Limerick: University of Limerick.
- Strutzenberger, G., Simonidis, C., Krafft, F., Mayer, D., & Schwameder, H. (2010). Joint loading at different variations of squats. In R. Jensen, W. Ebben, E. Petushek, C. Richter, & K. Roemer (Eds.), *Proceedings of the 28. International Conference on Biomechanics in Sports* (pp. 588-591). Marquette: Northern Michigan University.
- Strutzenberger, G., Wunsch, T., Kröll, J., & Schwameder, H. (2012). Pedal forces, lower limb joint kinematics and kinetics in cycling with circular and non-circular chainrings. In E. Bradshaw, A. Burnett, & P. Hume (Eds.), *Proceedings of the 30. International Symposium on Biomechanics in Sports* (pp. 179-182). Melbourne - Australia: Australian Catholic University.
- Trinler, U., Alexander, N., Schwameder, H., & Baker, R. (2017). Muscle force estimation in clinical biomechanics: Anybody vs OpenSim. In W. Potthast, A. Niehoff, & S. David (Eds.), *Proceedings of the 35th International Conference on Biomechanics in Sports* (pp. 420-423). Cologne, Germany: International Society of Biomechanics in Sports.
- von Tscherner, V., & Schwameder, H. (2001). Filtering of force variables in skiing by specified wavelet analysis. In E. Müller, H. Schwameder, C. Raschner, S. Lindinger, & E. Kornexl (Eds.), *Science and Skiing II* (pp. 55-68). Hamburg - Germany: Verlag Dr. Kovac.
- Wunsch, T., Kröll, J., Stöggel, T., & Schwameder, H. (2014). Biomechanical and metabolic effects of a leaf spring structured midsole in overground running. In K. Sato, W. Sands, & S. Mizuguchi (Eds.), *eProceedings of the 32nd Conference of the International Society of Biomechanics in Sport* (Vol. 1, pp. 97-100). Johnson City, TN, USA: 2014 ISBS Organizing Committee.
- Wunsch, T., Wiesinger, H.-P., Kröll, J., Müller, E., & Schwameder, H. (2015). Ankle muscle strength and Achilles tendon properties in runners with different speed dependent heel-strike patterns. In *33<sup>rd</sup> Conference of the International Society of Biomechanics in Sports* (Vol. 1). Portiers, France: 2015 ISBS Organizing Committee.

#### Conference Paper (151)

- Alexander, N., & Schwameder, H. (2015). *Comparison of estimated and measured muscular activity during inclined walking*. Paper presented at the XXV Congress of the International Society of Biomechanics, Glasgow, UK.
- Alexander, N., & Schwameder, H. (2016). *Lower limb muscle forces during sloped walking at different inclinations*. Paper presented at the 21st Annual Congress of the European College of Sport Science, Vienna, Austria. oral retrieved from
- Alexander, N., Strutzenberger, G., Christian, J., & Schwameder, H. (2014). *Maximum isometric strength in patients with acute unilateral anterior cruciate ligament rupture*. Paper presented at the eProceedings of the 32nd Conference of the International Society of Biomechanics in Sport, Johnson City, TN.
- Alexander, N., Strutzenberger, G., De Asha, A. R., Schwameder, H., & Barnett, C. (2017). *How appropriate is the inverted pendulum model during gait for individuals with unilateral transfemoral amputation?* Paper presented at the ISPO World Congress 2017, Cape Town 8-11.5.2017.
- Alexander, N., Strutzenberger, G., Kröll, J., Christian, J., Wunsch, T., & Schwameder, H. (2014). *Joint loading during graded walking with different prostheses – a case study*. Paper presented at the 23rd Annual Meeting of the European Society of Movement Analysis for Adults and Children (ESMAC) Rome.
- Alexander, N., Strutzenberger, G., Kröll, J., & Schwameder, H. (2014). *Gelenkbelastungen beim Gehen auf Neigung mit verschiedenen Prothesenfüßen - eine Fallstudie*. Paper presented at the 15. Kongress der Österreichischen Sportwissenschaftlichen Gesellschaft (ÖSG), Innsbruck, Austria.

- Amma, C., Fischer, A., Stein, T., Schwameder, H., & Schultz, T. (2010). *Erkennung von Emotionen auf der Basis von Gangmustern*. Paper presented at the Sportinformatik trifft Sporttechnologie, Darmstadt.
- Basler, B., Stein, T., Seidel, I., & Schwameder, H. (2008). *Eine Fallstudie zum Techniktraining beim Tennisaufschlag mit Anfängern*. Paper presented at the 6. dvs Sportspiel-Symposium, Konstanz.
- Brüggemann, P., De Monte, G., Komi, P., Isolehto, J., Müller, E., Potthast, W., . . . Virmavirta, M. (2002). *Biomechanical analysis of the take-off, the early and the mid-flight phases in ski jumping during the Salt Lake City Winter Games*. Paper presented at the Med Sci Sport Exerc.
- Burgstaller, R., Schwameder, H., & Müller, E. (2002). *Classification of movement patterns in graded walking using neuronal networks*. Paper presented at the 7<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Athens - Greece.
- Burtscher, M., Raschner, C., Zallinger, G., Schwameder, H., & Müller, E. (2000). *Comparison of cardiorespiratory and metabolic responses during conventional and carving skiing*. Paper presented at the 2nd International Congress on Science and Skiing (ICSS), St. Christoph a. Arlberg - Austria.
- Christian, J., Alexander, N., & Schwameder, H. (2014). *Automatische Klassifikation kinematischer Gangmuster nach einem Kreuzbandriss*. Paper presented at the 10. Symposium der DVS Sektion Sportinformatik, Vienna - Austria.
- Christian, J., Alexander, N., & Schwameder, H. (2014). *Automatische Klassifikation vertikaler Bodenreaktionskräfte nach einer Kreuzbandruptur*. Paper presented at the 15. Kongress der Österreichischen Sportwissenschaftlichen Gesellschaft (ÖSG), Innsbruck - Austria.
- Christian, J., Gierlinger, G., & Schwameder, H. (2012). *Machine Learning Based Classification of Neuromuscular Activation Patterns of Walking on Different Inclined Surfaces*. Paper presented at the 17<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Bruges - Belgium.
- Christian, J., Kluge, F., Eskofier, B. M., & Schwameder, H. (2016). *Comparison of different marker sets for marker trajectory based classification of simulated gait impairments*. Paper presented at the 21st Annual Congress of the European College of Sport Science (ECSS), Vienna - Austria. oral retrieved from
- Dyer, L., Swanenburg, J., Schwameder, H., & Bouaicha, S. (2017). *Rôle de l'articulation gléno-humérale lors de la flexion globale de l'épaule: valeurs-limites de mobilité avec la tête relevée*. Paper presented at the Physioswiss, Davos.
- Fischer, A., Do, M., Stein, T., Asfour, T., Dillmann, R., & Schwameder, H. (2011). *Recognition of individual kinematic patterns during walking and running - a comparison of artificial neural networks and support vector machines*. Paper presented at the Int J Comp Sci Sport.
- Fischer, A., Stein, T., Gehrig, D., Schultz, T., & Schwameder, H. (2008). *Bewegungserkennung mit Hidden Markov-Modellen*. Paper presented at the Landessymposium der baden-württembergischen Institute für Sport und Sportwissenschaft, Karlsruhe.
- Fischer, A., Stein, T., Gehrig, D., Schultz, T., & Schwameder, H. (2009). *Bewegungserkennung mit Hidden Markov Modellen*. Paper presented at the 11. Tagung der dvs-Sektion Sportmotorik, Hamburg.
- Fischer, A., Stein, T., Gehrig, D., Schultz, T., & Schwameder, H. (2009). *Training und Erkennung mit Hidden Markov-Modellen bei unterschiedlichen Geh-/Laufgeschwindigkeiten*. Paper presented at the Tagung der dvs-Sektion Biomechanik, Tübingen.
- Fritz, J., Kröll, J., Lindorfer, J., & Schwameder, H. (2016). *Computation of ground reaction forces in ski jumping imitation jumps based on inverse dynamics*. Paper presented at the 7<sup>th</sup> International Congress on Science and Skiing (ICSS), St. Christoph/Arlberg - Austria.
- Fritz, J., Lindinger, S., & Schwameder, H. (2015). *Correlation between strength related parameters and ski-jumping performance in junior ski-jumpers*. Paper presented at the 3<sup>rd</sup> International Congress on Science and Nordic Skiing 2015 - ICSNS2015, Vuokatti - Finland. [www.ICSNS2015.fi](http://www.ICSNS2015.fi)
- Gehrig, D., Fischer, A., Köhler, H., Stein, T., Wörner, A., Schwameder, H., & Schultz, T. (2008). *Online Recognition of Daily-Life Movements*. Paper presented at the IEEE-RAS International Conference on Humanoid Robots.
- Gierlinger, G., Christian, J., & Schwameder, H. (2013). *The effects of graded slopes and the use of hiking poles on lower extremity muscle activity*. Paper presented at the 18th Annual Congress of the European College of Sport Science (ECSS), Barcelona - Spain. mini-oral retrieved from
- Gierlinger, G., Christian, J., & Schwameder, H. (2013). *The effects of graded slopes and walking speed on lower extremity muscle activity*. Paper presented at the 18th Annual Congress of the European College of Sport Science (ECSS), Barcelona - Spain. oral retrieved from

- Greimel, F., Virnavirta, M., & Schwameder, H. (2007). *Biomechanical analysis of the landing phase in ski jumping*. Paper presented at the 4<sup>th</sup> International Congress on Science and Skiing (ICSS), St. Christoph am Arlberg - Austria.
- Haid, C., Schwameder, H., Müller, E., Raschner, C., & Darnhofer, M. (1994). *Forces in the knee joint during the inrun and take-off phase in ski jumping*. Paper presented at the 2. World Congress of Biomechanics, Amsterdam.
- Haudum, J., Wagner, H., & Schwameder, H. (2006). *Vergleichende kinematische Analyse von Rollstuhl- und stehend Tennisspielern*. Paper presented at the 5. Sportspiele-Symposium, Flensburg - Germany.
- Haudum, J., Wagner, H., & Schwameder, H. (2006). *Vergleichende kinematische Analyse von Rollstuhl- und stehenden Tennisspielern*. Paper presented at the 11. Symposium der Österreichischen Sportwissenschaftlichen Gesellschaft, Innsbruck.
- Haudum, J., Wagner, H., Schwameder, H., & Haudum, A. (2006). *Comparative kinematic analysis of similarities and differences in serve and groundstrokes between wheelchair and standing tennis player*. Paper presented at the 11<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Lausanne - Switzerland.
- Klous, M., Müller, E., & Schwameder, H. (2007). *Knee joint loading at the inside and outside leg in alpine skiing: a comparison between carved and skidded turns*. Paper presented at the 4<sup>th</sup> International Congress on Science and Skiing (ICSS), St. Christoph am Arlberg - Austria.
- Klous, M., Müller, E., & Schwameder, H. (2007). *Knee joint loading in alpine skiing: a comparison between carved and skidded turn*. Paper presented at the 12<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Jyväskylä - Finland.
- Klous, M., & Schwameder, H. (2003). *New method for 3D kinematic analysis in skiing*. Paper presented at the 8<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Salzburg - Austria.
- Klous, M., Schwameder, H., & Müller, E. (2004). *Kinematischer Messaufbau und Validierung kinematischer Daten für die Bestimmung von Gelenkbelastungen im Skilauf und Snowboarden*. Paper presented at the 10. Tagung der Österreichischen Sportwissenschaftlichen Gesellschaft (ÖSG), Schladming - Austria.
- Klous, M., Schwameder, H., & Müller, E. (2005). *Dynamics of carved and skidded ski and snowboard turns*. Paper presented at the 10<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Belgrade - Serbia.
- Klous, M., Schwameder, H., & Müller, E. (2006). *Joint loading on the lower extremities in skiing and snowboarding: methodological procedure*. Paper presented at the J Biomech.
- Koehler, H., Stein, T., Fischer, A., Schwameder, H., & Woerner, A. (2008). *Motion Analysis in Sports with Java Sun Spots Evaluating Training Success Verified by Optical Motion Capturing*. Paper presented at the 9th Australasian Conference on Mathematics and Computers in Sport, Tweed Heads, NSW, Australien.
- Kösters, A., Müller, E., Raschner, C., & Schwameder, H. (1998). *Anforderungsprofil an ein modernes Hochleistungstraining*. Paper presented at the Human Science in Contemporary Motorsport, Wien.
- Kösters, A., Schwameder, H., & Müller, E. (2002). *Correlation between endurance time and emg parameters during isometric trunk extension*. Paper presented at the 7<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Athens - Greece.
- Kröll, J., Lasshofer, M., Fritz, J., & Schwameder, H. (2018). *Assessing vertical Force-Velocity Profiles: Are two considered loads under specific circumstances enough?* Paper presented at the 23rd Annual Congress of the European College of Sport Science, Dublin, Ireland.
- Kröll, J., Seifert, J., Scheiber, P., Schwameder, H., & Müller, E. (2005). *Muscle fatigue in alpine skiing: determination through phase shifting in EMG?* Paper presented at the 10<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Belgrade - Serbia.
- Kröll, J., Spörri, J., Fasel, B., Schwameder, H., & Müller, E. (2013). *Type of muscle control in elite alpine skiing*. Paper presented at the 6<sup>th</sup> International Congress on Science and Skiing (ICSS), St. Christoph/Arlberg - Austria.
- Kröll, J., Spörri, J., Gilgien, M., Schwameder, H., & Müller, E. (2016). *Equipment regulation as a prevention measure for acute knee injuries in alpine ski racing*. Paper presented at the 21th Annual Congress of the European College of Sport Science (ECSS), Vienna - Austria. oral retrieved from
- Kröll, J., Spörri, J., Gilgien, M., Schwameder, H., Steenstrup, S. E., Bahr, R., & Müller, E. (2017). *The sequence of injury prevention in elite alpine ski racing – the ski regulation perspective*. Paper presented at the 22nd Congress of the International Society for Skiing Safety (ISSS), Innsbruck - Austria. oral retrieved from

- Kröll, J., Spörri, J., Müller, E., & Schwameder, H. (2013). *The effect of different (alpine) ski-snow interaction modes on the human body*. Paper presented at the 18<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Barcelona - Spain. invited speaker retrieved from
- Kröll, J., Spörri, J., Steenstrup, S. E., Gilgien, M., Schwameder, H., Müller, E., & Bahr, R. (2016). *Changing the ski regulation to protect the athlete's knee: What was the justification? What do the data tell us? What did we learn?* Paper presented at the 7<sup>th</sup> International Congress on Science and Skiing (ICSS), St. Christoph/Arlberg - Austria.
- Kurz, G., Ast, B., Strutzenberger, G., Stein, T., & Schwameder, H. (2018). *Biomechanical differences of cutting movements between football and American football players interpreted in relation to injury prevention* Paper presented at the 23<sup>rd</sup> Annual Congress of the European College of Sport Science (ECSS), Dublin - Ireland. Invited Symposia retrieved from
- Kurz, G., Lang, D., Richter, A., & Schwameder, H. (2009). *Reliability of drop jumps variation in performance diagnostics*. Paper presented at the Scientific Proceedings of the 27th International Conference on Biomechanics in Sports, Limerick.
- Kurz, G., Wank, V., & Schwameder, H. (2008). *Determination of muscle characteristics in isometric plantar flexions*. Paper presented at the 13. Annual Congress of the European College of Sport Science, Estoril, Lisbon.
- Kurz, G., Wank, V., & Schwameder, H. (2008). *Kontraktionseigenschaften von Plantarflexoren bei maximalen isometrischen Kontraktionen*. Paper presented at the Landessymposium der baden-württembergischen Institute für Sport und Sportwissenschaft, Karlsruhe.
- Lang, D., & H., S. (2010). *Ausprägung der Lateralität bei Sprüngen und isometrischer Kontraktion* Paper presented at the 8. gemeinsame Tagung der dvs Sektionen Biomechanik, Sportmotorik und Trainingswissenschaft, Hamburg.
- Lang, D., & Schwameder, H. (2010). *Ausprägung der Lateralität bei Sprüngen und isometrischer Kontraktion*. Paper presented at the 8. gemeinsame Tagung der dvs Sektionen Biomechanik, Sportmotorik und Trainingswissenschaft Hamburg.
- Lang, D., Strutzenberger, G., Richter, A., Kurz, G., & Schwameder, H. (2009). *Laterality in vertical jumps*. Paper presented at the 27th International Conference on Biomechanics in Sports, Limerick.
- Lederhilger, B., Trauner, T., & Schwameder, H. (2006). *Heart rate and lactate profile in beach soccer*. Paper presented at the 11<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Lausanne - Switzerland.
- Lindinger, S., Müller, E., Niessen, W., Schwameder, H., & Kösters, A. (1998). *Biodynamische und biokinematische Aspekte zur Idealtechnik Beinabstoß bei modernen Skatingtechniken im Skilanglaufrennsport*. Paper presented at the 3. Tagung der dvs-Sektionen Biomechanik, Sportmotorik und Trainingswissenschaft: Forschungsmethodologische Aspekte von Bewegung, Motorik und Training im Sport, Darmstadt, Germany.
- Lindinger, S., Müller, E., Niessen, W., Schwameder, H., & Kösters, A. (2000). *Comparative biomechanical analysis of modern skating techniques and special skating imitation drills on world class level*. Paper presented at the 2<sup>nd</sup> International Congress on Science and Skiing (ICSS), St. Christoph a. Arlberg - Austria.
- Lindorfer, J., Kröll, J., & Schwameder, H. (2018). *Coupling angle variability is unaffected by perceived comfort of running shoes*. Paper presented at the 23rd Annual Congress of the European College of Sport Science, Dublin, Ireland.
- Lüthi, A., Federolf, P., Fauve, M., Oberhofer, K., Rhyner, H. U., Ammann, W., . . . Müller, E. (2004). *Determination of forces in carving using three independent methods*. Paper presented at the 3<sup>rd</sup> International Congress on Science and Skiing (ICSS), Snowmass-Aspen, Colorado - USA.
- Moore, J., Strutzenberger, G., Griffiths, H., Irwin, G., & Schwameder, H. (2013). *The effect of gluteal kinesio tape on performance and fatigue*. Paper presented at the BASES Biomechanics Interest Group, University of Wolverhampton.
- Müller, E., Lindinger, S., Niessen, W., Schwameder, H., & Kösters, A. (1999). *The biomechanical structure of modern skating techniques with a specific focus on the optimal push-off movement*. Paper presented at the 4<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Rome.
- Müller, E., Lindinger, S., Raschner, C., & Schwameder, H. (2001). *Specific Principles in the Training of Winter Sports*. Paper presented at the 6<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Cologne - Germany.

- Müller, E., Lindinger, S., Sattlecker, G., Schwameder, H., & Stöggl, T. (2006). *The role of biomechanics in optimizing performance in nordic skiing*. Paper presented at the 1<sup>st</sup> International Congress on Science and Nordic Skiing (ICSNS), Vuokatti - Finland.
- Müller, E., Niessen, W., Raschner, C., & Schwameder, H. (2001). *Skiing with Carved Skis – Challenges and Limits*. Paper presented at the 28th Congress of the International Society of Biomechanics, Zürich - Switzerland.
- Müller, E., Raschner, C., Niessen, W., & Schwameder, H. (1999). *The Role of Biomechanics in the Training Process of Top Class Alpine Ski Racers*. Paper presented at the 27th Congress of the International Society of Biomechanics, Calgary.
- Müller, E., Raschner, C., & Schwameder, H. (1997). *The Function of Laboratory and Field Testing in the Training Process for High Performance Sport*. Paper presented at the 2<sup>nd</sup> Annual Congress of the European College of Sports Science (ECSS), Copenhagen - Denmark.
- Müller, E., Raschner, C., & Schwameder, H. (2000). *Biomechanics in Alpine Skiing - a review*. Paper presented at the 5<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Jyväskylä.
- Müller, E., Raschner, C., & Schwameder, H. (2002). *Biomechanics and Training in Elite Alpine Ski Racing*. Paper presented at the Med Sci Sports Exerc.
- Müller, E., Schiefermüller, C., Kröll, J., Raschner, C., & Schwameder, H. (2004). *Skiing with Carving Skis – What is New?*. Paper presented at the 3<sup>rd</sup> International Congress on Science and Skiing (ICSS), Snowmass-Aspen, Colorado - USA.
- Müller, E., Schiefermüller, C., Kröll, J., & Schwameder, H. (2006). *High Tech in Elite Alpine Ski Racing*. Paper presented at the 11<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Lausanne - Switzerland.
- Müller, E., Schwameder, H., Kröll, J., & Lindinger, S. (2003). *Biomechanics in elite sports performance*. Paper presented at the Proceedings of the 7. IOC Olympic World Congress on Sport Sciences, Athens.
- Müller, E., Schwameder, H., Kröll, J., Lindinger, S., & Stöggl, T. (2005). *Biomechanics in Elite Sport Performance*. Paper presented at the 4th International Scientific Conference on Kinesiology, Proceedings, Zagreb - Croatia.
- Müller, E., Schwameder, H., Kröll, J., Lindinger, S., Stöggl, T., & Wagner, H. (2005). *Biomechanics and Performance Enhancement*. Paper presented at the 10<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Belgrad - Serbia.
- Müller, E., Schwameder, H., Niessen, W., Raschner, C., Sandmayr, A., Zallinger, G., & Bernwick, U. (1995). *Does the use of a walking stick take the strain off the knee joints during mountain walks?* Paper presented at the 4. Scientific Conference Sport Kinetics, Prague.
- Müller, E., Schwameder, H., & Schiefermüller, C. (2002). *Skiing with carved skis – challenges on performance and safety*. Paper presented at the 4th World Congress on Biomechanics, Calgary.
- Niessen, W., Müller, E., Raschner, C., & Schwameder, H. (1997). *About the Dynamic Behaviour of the Ski-Binding-Boot System during Turns in Alpine Skiing Focused on the Use of Binding Plates*. Paper presented at the 24th Congress of the International Society of Biomechanics, Tokyo.
- Niessen, W., Müller, E., Raschner, C., Schwameder, H., Wimmer, M., & Schmiedmayer, H. (1999). *Bedeutung des lateralen Moments bei Riesenslalomschwüngen im alpinen Skilauf*. Paper presented at the 5. Symposium der dvs-Sektion Biomechanik, Apparative Biomechanik - Methodik und Anwendungen, Münster.
- Niessen, W., Wimmer, M., Müller, E., & Schwameder, H. (2000). *Changes of force-time data in ski turns depending on riser height*. Paper presented at the 2<sup>nd</sup> International Congress on Science and Skiing (ICSS), St. Christoph a. Arlberg - Austria.
- Nigg, B., Schwameder, H., & Stefanyshyn, D. (2000). *The effect of ski binding position on performance and comfort in skiing*. Paper presented at the 2<sup>nd</sup> International Congress on Science and Skiing (ICSS), St. Christoph a. Arlberg - Austria.
- Raschner, C., Müller, E., Burtcher, M., Rhyner, H.-U., Schwameder, H., & Zallinger, G. (1999). *The Influence of Ski Preparation on Motor Load during Skiing*. Paper presented at the 4<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Rome - Italy.
- Raschner, C., Müller, E., & Schwameder, H. (1998). *Determining sport-specific variables of influence and optimization of training methods in development and high performance sport: dynamic, kinematic and electromyographic technique analysis for alpine skiing and ski racing*. Paper presented at the 6. Emed Scientific Meeting, Brisbane.



- Rasp, B., Strutzenberger, G., Wagner, H., & Schwameder, H. (2006). *Kinematische und dynamometrische Analyse der Nordic-Walking-Technik hinsichtlich Stocklängenvariation*. Paper presented at the 11. Symposium der Österreichischen Sportwissenschaftlichen Gesellschaft, Innsbruck - Austria.
- Richter, A., & Schwameder, H. (2008). *Comparative analysis of vertical ground reaction forces in tap dancing*. Paper presented at the 13. Annual Congress of the European College of Sport Science, Estoril, Lisbon.
- Roithner, R., Schwameder, H., Müller, E., & Niessen, W. (1999). *Knee joint forces during downhill walking with hiking poles*. Paper presented at the 1. International Conference on Science and Technology in Climbing and Mountaineering, Leeds.
- Schilcher, P., Schwameder, H., Lindenhofer, E., & Ring, S. (2003). *Mechanical and metabolic energy aspects of different binding-boot systems in ski-touring*. Paper presented at the 8<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Salzburg - Austria.
- Schöllhorn, W., Müller, E., Lindinger, S., Raschner, C., Schwameder, H., & Benko, U. (2000). *Individuality and generality in ski turn techniques*. Paper presented at the 2<sup>nd</sup> International Congress on Science and Skiing (ICSS), St. Christoph a. Arlberg - Austria.
- Schwameder, H. (2006). *Biomechanical issues in ski-jumping*. Paper presented at the 1st International Congress on Science and Nordic Skiing (ICSNS), Vuokatti - Finland.
- Schwameder, H. (2007). *Issues and challenges of applied sport biomechanics research*. Paper presented at the J Biomech.
- Schwameder, H. (2010). *Challenges and issues in ski jumping biomechanics*. Paper presented at the 5<sup>th</sup> International Congress on Science and Skiing (ICSS), St. Christoph / Arlberg - Austria.
- Schwameder, H. (2012). *Conceptual aspects of biomechanics in ski jumping*. Paper presented at the 2<sup>nd</sup> International Congress on Science and Nordic Skiing (ICSNS), Vuokatti - Finland.
- Schwameder, H., & Alexander, N. (2015). *Knee joint structure forces in inclined walking at self-selected and pre-set speed*. Paper presented at the XXV Congress of the International Society of Biomechanics, Glasgow, UK.
- Schwameder, H., & Alexander, N. (2016). *Joint loading in inclined walking covering diverse settings*. Paper presented at the 21st Annual Congress of the European College of Sport Science, Vienna - Austria. oral retrieved from
- Schwameder, H., & Kurz, G. (2008). *Goals and relevance of biomechanical diagnostics in elite sports*. Paper presented at the 13. Annual Congress of the European College of Sport Science, Estoril, Lisbon.
- Schwameder, H., Lindenhofer, E., & Müller, E. (2001). *Prediction of structure forces in the knee joint by ground reaction forces and knee moments*. Paper presented at the 6<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Cologne.
- Schwameder, H., Lindinger, S., Stöggl, T., Kröll, J., Benko, U., & Müller, E. (2005). *Biomechanical performance diagnostics in elite sports*. Paper presented at the 10<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Belgrade - Serbia.
- Schwameder, H., & Müller, E. (2001). *Biomechanics in ski-jumping - A review*. Paper presented at the IOC Medical Commission Symposium 'Current Issues on Biomechanics of Ski-jumping', Salzburg - Austria.
- Schwameder, H., & Müller, E. (2001). *Early flight phase as significant transition link between takeoff and stable flight in ski jumping*. Paper presented at the 6. IOC World Congress, Salt Lake City, Utah - USA.
- Schwameder, H., & Müller, E. (2002). *Biomechanical analysis of sport techniques: from basics to application*. Paper presented at the 7<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Athens - Greece.
- Schwameder, H., & Müller, E. (2002). *Biomechanical research methodology in skijumping: overview and perspectives*. Paper presented at the 4th World Congress on Biomechanics, Calgary.
- Schwameder, H., & Müller, E. (2003). *Biomechanics on performance enhancement in ski-jumping*. Paper presented at the 8<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Salzburg - Austria.
- Schwameder, H., & Müller, E. (2003). *Ski-jumping: Performance Limiting Factors*. Paper presented at the Proceedings of the 7. IOC Olympic World Congress on Sport Sciences, Athens - Greece.
- Schwameder, H., Müller, E., De Monte, G., Potthast, W., Brüggemann, G.-P., Virmavirta, M., . . . Komi, P. (2004). *Kinematic characteristics of the early flight phase in ski-jumping*. Paper presented at the 3<sup>rd</sup> international congress on science and skiing (ICSS), Snowmass-Aspen, Colorado - USA.

- Schwameder, H., Müller, E., De Monte, G., Potthast, W., Brüggemann, P., Virnavirta, M., . . . Komi, P. (2004). *Ballistic and aerodynamic characteristics of the early flight phase determining performance in ski jumping*. Paper presented at the 9<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Clermont-Ferrand.
- Schwameder, H., Nigg, B., von Tschanner, V., & Stefanyshyn, D. (2000). *The effect of binding position on kinetic variables in alpine skiing*. Paper presented at the 2<sup>nd</sup> International Congress on Science and Skiing (ICSS), St. Christoph a. Arlberg - Austria.
- Schwameder, H., Raschner, C., & Müller, E. (1994). *Three-dimensional kinematic analysis of the take-off and first flight phase in ski jumping*. Paper presented at the World Congress Physical Education and Sport, Berlin.
- Schwameder, H., & Ring, S. (2006). *Knee joint loading and metabolic energy demand in walking, Nordic walking and running*. Paper presented at the J Biomech.
- Schwameder, H., Ring, S., & Lindinger, S. (2005). *Belastungen in den Gelenken der unteren Extremitäten beim Nordic Walking und Laufen*. Paper presented at the 3. Internationalen Nordic Walking Kongress der Nordic Walking Organisation, Bad Tatzmannsdorf - Austria.
- Schwameder, H., Roithner, R., Burgstaller, R., & Müller, E. (2001). *Knee joint forces in uphill, downhill and level walking*. Paper presented at the 18th Congress of the International Society of Biomechanics (ISB), Zürich - Switzerland.
- Schwameder, H., Roithner, R., & Müller, E. (2000). *Energy distribution at the lower extremity joints in uphill, level and downhill walking depending on different gradients*. Paper presented at the 5th Annual Congress of the European College of Sport Science, Jyväskylä, Finland.
- Schwameder, H., Roithner, R., Müller, E., Niessen, W., & Raschner, C. (1999). *Comparison of Lower Extremity Joint Kinetics during Downhill Walking with and without Hiking Poles*. Paper presented at the 17th Congress of the International Society of Biomechanics (ISB), Calgary - Canada.
- Schwameder, H., Schiefermüller, C., Niessen, W., & Müller, E. (2003). *Technology and skiing performance*. Paper presented at the 8<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Salzburg - Austria.
- Schwameder, H., Strutzenberger, G., & Alexander, N. (2015). *Lateral stability in daily life, sport and locomotion activities*. Paper presented at the 20<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Malmö - Sweden. Invited Symposia retrieved from
- Simonidis, C., Bauer, F., Richter, A., Schwameder, H., & Seemann, W. (2009). *Estimation of spinal motion and load for human full-body motion*. Paper presented at the XXII Congress of the International Society of Biomechanics, Cape Town, South Afrika.
- Simonidis, C., Stein, T., Bauer, F., Fischer, A., Schwameder, H., & Seemann, W. (2009). *Solving optimal control problems with recursive multibody systems and motion capture to understand the principles of human motion*. Paper presented at the XII International Symposium on Computer Simulation in Biomechanics, Cape Town, South Africa.
- Simonidis, C., Stein, T., Bauer, F., Schwameder, H., & Seemann, W. (2010). *Modellierung und Simulation menschlicher und humanoider Bewegungen – Werkzeuge in der Biomechanik und Robotik*. Paper presented at the Tagung der dvs-Sektion Sportinformatik und der deutschen interdisziplinären Vereinigung für Sporttechnologie, Darmstadt.
- Simonidis, C., Stein, T., Fischer, A., Bauer, F., Schwameder, H., & Seemann, W. (2009). *MKD-Tools: Ein Mehrkörperalgorithmus zur Analyse und Synthese menschlicher Bewegungen In Biomechanik – Grundlagenforschung und Anwendung*. Paper presented at the Tagung der dvs-Sektion Biomechanik, Tübingen.
- Simonidis, C., Stein, T., Fischer, A., Schwameder, H., & Seemann, W. (2009). *Coupling of motion capture and multi-body dynamics to determine the principles of motion for human pointing gestures*. Paper presented at the 14th Annual Congress of the European College of Sport Science (ECSS), Oslo.
- Söser, K., & Schwameder, H. (2004). *Kinematische Analyse von Stand- und Sprungservice im Faustball*. Paper presented at the 10. Tagung der österreichischen sportwissenschaftlichen Gesellschaft (ÖSG), Schladming - Austria.
- Spörri, J., Kröll, J., Schwameder, H., & Müller, E. (2013). *Alpine ski racing equipment - the challenge of balancing performance and safety aspects*. Paper presented at the 18<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Barcelona - Spain. invited speaker retrieved from

- Spörri, J., Kröll, J., Schwameder, H., & Müller, E. (2013). *Biomechanical predictors of performance in alpine ski racing*. Paper presented at the 18<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Barcelona - Spain. oral retrieved from
- Spörri, J., Kröll, J., Schwameder, H., & Müller, E. (2016). *Predictors of instantaneous performance in alpine giant slalom - how to best solve the permanent trade-off between shortening the path while maintaining speed?* Paper presented at the 7<sup>th</sup> International Congress on Science and Skiing (ICSS), St. Christoph/Arberg - Austria.
- Stein, T., Fischer, A., Boesnach, I., Gehrig, D., Köhler, H., & Schwameder, H. (2007). *Kinematische Analyse menschlicher Alltagsbewegungen für die Mensch-Maschine-Interaktion*. Paper presented at the divers Workshop 2007.
- Stein, T., Fischer, A., Simonidis, C., Bauer, F., Seemann, W., & Schwameder, H. (2009). *The coordination of multi-joint pointing movements in 3D space*. Paper presented at the 14th Annual Congress of the European College of Sport Science (ECSS), Oslo.
- Stein, T., Fischer, A., Simonidis, C., Seemann, W., & Schwameder, H. (2008). *Koordination zielgerichteter menschlicher Bewegungen*. Paper presented at the Landessymposium der baden-württembergischen Institute für Sport und Sportwissenschaft, Karlsruhe.
- Stein, T., Fischer, A., Simonidis, C., Stelzner, G., Seemann, W., & Schwameder, H. (2008). *Kinematic analysis of human pointing gestures*. Paper presented at the 10th International symposium on 3D Analysis of Human Movement – Fusion Works Netherland, Santpoort/Amsterdam.
- Stein, T., Simonidis, C., Fischer, A., Seemann, W., & Schwameder, H. (2009). *Bewegungssteuerung in Systemen mit redundanten Freiheitsgraden*. Paper presented at the 41. Jahrestagung der Arbeitsgemeinschaft für Sportpsychologie, Hamburg.
- Stein, T., Simonidis, C., Fischer, A., Seemann, W., & Schwameder, H. (2009). *Komputationale Modelle der Bewegungsplanung*. Paper presented at the 11. Tagung der dvs-Sektion Sportmotorik, Hamburg.
- Stein, T., Simonidis, C., Fischer, A., Seemann, W., & Schwameder, H. (2009). *Trajektorien-generierung mit Hilfe von Optimierungsansätzen. In Biomechanik – Grundlagenforschung und Anwendung*. Paper presented at the Tagung der dvs-Sektion Biomechanik, Tübingen.
- Stein, T., Simonidis, C., Seemann, W., & Schwameder, H. (2010). *Optimierungsprinzipien in der Bewegungskontrolle*. Paper presented at the Tagung der dvs-Sektion Sportinformatik und der deutschen interdisziplinären Vereinigung für Sporttechnologie, Darmstadt.
- Stein, T., Simonidis, C., Seemann, W., & Schwameder, H. (2010). *Quantitative Modelle der Bewegungskoordination*. Paper presented at the 8. gemeinsame Tagung der dvs Sektionen Biomechanik, Sportmotorik und Trainingswissenschaft, Hamburg.
- Strutzenberger, G., Alexander, N., De Asha, A. R., Schwameder, H., & Barnett, C. (2017). *An assessment of the function of an inverted pendulum model during gait over level ground and on slopes in able-bodied and unilateral transfemoral amputees*. Paper presented at the XXVI Congress of the International Society of Biomechanics Brisbane.
- Strutzenberger, G., Bamboschek, D., Nußdorfer, A., Alexander, N., Langhof, H., & Schwameder, H. (2015). *Gait analysis of obese adolescent's uphill walk: Kinematic and kinetic adaptations compared to normal weight adolescents*. Paper presented at the 20<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Malmö - Sweden. Mini Oral retrieved from
- Strutzenberger, G., Braig, M., S., S., & Schwameder, H. (2011). *Wirkung verschiedener Orthesentypen auf die passive Instabilität, die Stabilisierungsfähigkeit und die Kraft von Patienten mit nicht operativ versorgter vorderer Kreuzbandruptur*. Paper presented at the 59. Jahrestagung der Vereinigung Süddeutscher Orthopäden und Unfallchirurgen eV (VSOU), Baden-Baden.
- Strutzenberger, G., Braig, M., Sell, S., & Schwameder, H. (2010). *Wirkung verschiedener Orthesentypen auf die passive Instabilität, die Stabilisation und die Kraft bei Patienten mit nicht operativ versorgter vorderer Kreuzbandruptur*. Paper presented at the 13. Kongress der ÖSG, Bruck/Mur.
- Strutzenberger, G., Graf, E., Nußdorfer, A., Bamboschek, D., Alexander, N., Langhof, H., & Schwameder, H. (2015). *Belastungsanalyse des Abwärtsgehens von adipösen Jugendlichen bei verschiedenen Neigungen, Pilotstudie*. Paper presented at the 9. Jahrestagung der Deutschen Gesellschaft für Biomechanik

- Strutzenberger, G., Mayer, D., Krafft, F., & Schwameder, H. (2011). *Die Belastung der unteren Extremität bei unterschiedlichen Kniebeuge-Variationen*. Paper presented at the 7. Jahrestagung der Deutschen Gesellschaft für Biomechanik, Murnau.
- Strutzenberger, G., Pühringer, M., & Schwameder, H. (2017). *Aktivität der Schultermuskulatur beim Therapeutischen Klettern*. Paper presented at the 10. Jahrestagung der Deutschen Gesellschaft für Biomechanik
- Strutzenberger, G., Rasp, B., Wagner, H., & Schwameder, H. (2006). *Vergleich von Gehen und Nordic Walking hinsichtlich biomechanischer Parameter bei verschiedenen Geschwindigkeiten*. Paper presented at the 11. Symposium der Österreichischen Sportwissenschaftlichen Gesellschaft, Innsbruck - Austria.
- Strutzenberger, G., Schneider, M., & Schwameder, H. (2008). *Gelenkbelastung von adipösen Kindern am Beispiel Treppensteigen*. Paper presented at the Landessymposium der baden-württembergischen Institute für Sport und Sportwissenschaft, Karlsruhe.
- Strutzenberger, G., & Schwameder, H. (2008). *Influence of body weight on joint loading in stair climbing*. Paper presented at the 13. Annual Congress of the European College of Sport Science, Estoril, Lisbon
- Strutzenberger, G., Wunsch, T., Kröll, J., & Schwameder, H. (2013). *Biomechanische Effekte von ovalen Kettenblättern*. Paper presented at the 8. Jahrestagung der Deutschen Gesellschaft für Biomechanik (DGfB), Ulm - Germany.
- Trauner, T., Lederhilger, B., & Schwameder, H. (2006). *Kinematic match analysis in beach soccer*. Paper presented at the 11<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Lausanne - Switzerland.
- Trinler, U., Alexander, N., Schwameder, H., & Baker, R. (2018). *Comparing estimated muscle forces between AnyBody and OpenSim using Statistical Parameter Mapping*. Paper presented at the ISB 3D-AHM 2018, Salford, UK.
- Virmavirta, M., Isolehto, J., Komi, P., Brüggemann, P., Potthast, W., De Monte, G., . . . Schwameder, H. (2003). *Characteristics of the early flight phase in the Olympic ski jumping competition*. Paper presented at the 8<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Salzburg.
- Virmavirta, M., Isolehto, J., Komi, P., Brüggemann, P., Potthast, W., De Monte, G., . . . Schwameder, H. (2003). *Early flight phase in the Olympic ski jumping competition*. Paper presented at the Proceedings of the 7. IOC Olympic World Congress on Sport Sciences, Athens.
- Virmavirta, M., Isolehto, J., Komi, P., Schwameder, H., Pigozzi, F., & Massazza, G. (2006). *Velocity of the ski jumpers during the take-off in Olympic ski jumping competition (HS-106 M)*. Paper presented at the 11<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Lausanne - Switzerland.
- von Tscherner, V., & Schwameder, H. (2000). *Filtering of force variables in skiing by specified wavelet analysis*. Paper presented at the 2<sup>nd</sup> International Congress on Science and Skiing (ICSS), St. Christoph a. Arlberg - Austria.
- Werner, I., & Schwameder, H. (2001). *Change of fitness levels of physically active students within the last eight years*. Paper presented at the 6<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Cologne - Germany.
- Werner, I., & Schwameder, H. (2001). *The influence of specialisation on fitness levels*. Paper presented at the 6<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Cologne - Germany.
- Wunsch, T., Alexander, N., Kröll, J., & Schwameder, H. (2015). *Effects of a leaf spring structured midsole on lower limb muscle forces in running*. Paper presented at the Footwear Biomechanics Symposium 2015, Liverpool, UK.
- Wunsch, T., Kröll, J., & Schwameder, H. (2014). *Anpassung des Fußaufsatzwinkels an zunehmende Laufgeschwindigkeiten*. Paper presented at the 15. Kongress der Österreichischen Sportwissenschaftlichen Gesellschaft (ÖSG), Innsbruck.
- Wunsch, T., Kröll, J., Stöggel, T., & Schwameder, H. (2014). *Effects of a leaf spring structured and a foam midsole shoe on the foot kinematics in overground and treadmill running*. Paper presented at the International Calgary Running Symposium, Calgary - Canada.

### *Conference Proceedings (1)*

Müller, E., Schwameder, H., Zallinger, G., & Fastenbauer, V. (2003). *Proceedings of the 8<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS)*. Paper presented at the 8<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), Salzburg - Austria.

### *Edited Book (5)*

Müller, E., Bacharach, D., Klika, R., Lindinger, S., & Schwameder, H. (Eds.). (2005). *Science and Skiing III - Proceedings of the 3<sup>rd</sup> International Congress on Science and Skiing (ICSS)*. Aachen: Meyer & Meyer Sport.

Müller, E., & Schwameder, H. (Eds.). (1996). *Aspekte der Sportwissenschaft*. Salzburg: Institut für Sportwissenschaften.

Müller, E., Schwameder, H., Kornexl, E., & Raschner, C. (Eds.). (1997). *Science and Skiing - Proceedings of the 1<sup>st</sup> International Congress on Science and Skiing (ICSS)*. London: E & FN Spon.

Müller, E., Schwameder, H., Raschner, C., Lindinger, S., & Kornexl, E. (Eds.). (2001). *Science and Skiing II - Proceedings of the 2<sup>nd</sup> International Congress on Science and Skiing (ICSS)*. Hamburg: Verlag Dr. Kovac.

Schwameder, H., Strutzenberger, G., Fastenbauer, V., Lindinger, S., & Müller, E. (Eds.). (2006). *Proceedings of the 24. International Symposium on Biomechanics in Sports*. Salzburg - Austria: University Press.

### *Report (2)*

Schwameder, H., & Roithner, R. (1998). *Zweidimensionales Kniemodell*. Retrieved from Salzburg:

Schwameder, H., Roithner, R., & Müller, E. (1998). *Veränderung knieinterner Strukturkräfte durch Verwendung von Tourenstöcken beim Bergabgehen*. Retrieved from Salzburg:

### *Thesis (2)*

Schwameder, H. (1994). *Biokinematische und biodynamische Analyse der V-Technik im Skispringen*. (PhD Monography), University of Salzburg, Salzburg.

Schwameder, H. (2003). *Biomechanische Analyse und Steuerung der Belastung in den Gelenken der unteren Extremitäten beim Gehen und Berggehen*. (Associate Professor Monography - post-doctoral thesis), University of Salzburg, Salzburg.