

Morten Enemark Lund  
PhD Student

Fibigerstræde 16, A4-220  
9220, Aalborg Ø  
Denmark

E-mail: mel@m-tech.aau.dk  
Phone: 0045 9940 3363  
Mobile: 0045 2929 3610



## Work Experience

2009 - 2014 PhD fellow at Depart of Mechanical and Manufacturing Engineering  
Aug 2009 R&D Engineer of Medical Devices at TKS A/S  
2008 -2009 Research assistant, Department of Health Science and Technology  
Aug 08-Aug 09 Assistant teacher in mathematics for first year mathematics students. Department of Mathematical Sciences. AAU  
Aug 07-Jan 08 Full time Engineering Trainee at Mermaid Care A/S  
2006 -2010 Founded the company 2B Engineering I/S  
2004-2007 Student consultant at Department of Health Science and Technology

## Education and Qualification

2002-2008 Master of science in biomedical engineering, Aalborg University  
1998-2001 Mathematics/physics graduate student from Haderslev Katedralskole

## Awards and Grants

2007 Received the Oticon scholarship. The scholarship served as funding for the Master Thesis project.

## Journal papers and articles in proceedings

**Running in circles: Describing running kinematics using Fourier series.** / Skejø, Sebastian Deisting; Lund, Morten Enemark ; Stensvig, Martin Thorhauge; Kaae, Nickolaj Mads; Rasmussen, John.  
In: Journal of Biomechanics, Vol. 115, 110187, 29.12.2020.

**AnyPyTools : A Python package for reproducible research with the AnyBody Modeling System.** / Lund, Morten Enemark; Rasmussen, John; Andersen, Michael Skipper.  
In: The Journal of Open Source Software, Vol. 4, No. 33, 1108, 07.01.2019.

**Effects of a semi-rigid ankle brace on ankle joint loading during landing on inclined surfaces.** / Theodorakos, Ilias; Rüterbories, Jan; Lund, Morten Enemark; Eils, Erik; Andersen, Michael Skipper; de Zee, Mark; Kersting, Uwe G.  
In: International Biomechanics, Vol. 5, No. 1, 2018, p. 46-56.

**Balance training enhances motor coordination during a perturbed sidestep cutting task.** / Oliveira, Anderson Souza; Silva, Priscila de Brito; Lund, Morten Enemark; Farina, Dario; Kersting, Uwe Gustav.  
In: Journal of Orthopaedic and Sports Physical Therapy, Vol. 47, No. 11, 2017, p. 853-862.

**Development and functional demonstration of a wireless intraoral inductive tongue computer interface for severely disabled persons.** / Struijk, Lotte N. S. Andreasen; Lontis, Eugen Romulus; Gaihede, Michael; Caltenco, Hector A.; Lund, Morten Enemark; Schiøler, Henrik; Bentsen, Bo.  
In: Disability and Rehabilitation: Assistive Technology, Vol. 12, No. 6, 2017, p. 631-640.

**Ankle bracing effects on knee and hip mechanics during landing on inclined surfaces.** / Theodorakos, Ilias; Rüterbories, Jan; Lund, Morten Enemark; Andersen, Michael Skipper; de Zee, Mark; Kersting, Uwe G.  
In: International Biomechanics, Vol. 3, No. 1, 2016, p. 22-32.

**Scaling of musculoskeletal models from static and dynamic trials.** / Lund, Morten Enemark; Andersen, Michael Skipper; de Zee, Mark; Rasmussen, John.

In: *International Biomechanics*, Vol. 2, No. 1, 2015, p. 1-11.

**Slipping during side-step cutting : anticipatory effects and familiarization.** / Oliveira, Anderson S. C.; Silva, Priscila de Brito; Lund, Morten Enemark; Farina, Dario; Kersting, Uwe G.

In: *Human Movement Science*, Vol. 34, No. 1, 2014, p. 128-136.

**Effects of Perturbations to Balance on Neuromechanics of Fast Changes in Direction during Locomotion.** / Oliveira, Anderson S. C.; Silva, Priscila de Brito; Lund, Morten Enemark; Gizzi, Leonardo; Farina, Dario; Kersting, Uwe G.

In: *P L o S One*, Vol. 8, No. 3, Article No. 59029, 2013, p. 1-13.

**Fast changes in direction during human locomotion are executed by impulsive activation of motor modules.** / Oliveira, Anderson; Silva, Priscila de Brito; Lund, Morten Enemark; Kersting, Uwe G.; Farina, D.

In: *Neuroscience*, Vol. 228, 2013, p. 283-293.

## Conference abstracts

### **A two-step muscle/tendon-length calibration in musculoskeletal models**

Heinen, F., Lund, M. E., Damsgaard, M., Rasmussen, J. & de Zee, M., 2013, *ISB 2013, XXIV Congress of the International Society of Biomechanics, 4-9 August 2013, Natal, Brazil*. International Society of Biomechanics, ISB, p. 102, No. MODEL-MUSCULOSKELETAL.02

### **Calibration of tendon slack length and optimal fiber length from experimental measurements of arm strength**

Lund, M. E., Guenzkofer, F., Heinen, F., Damsgaard, M., de Zee, M. & Rasmussen, J., 2013, *Proceedings of the 14th International Symposium on Computer Stimulation in Biomechanics, ISCSB, 1-3 August 2013, Natal, Brazil*. International Society of Biomechanics, ISB, p. 11-12

### **Locomotor primitives: perspectives in relation to musculoskeletal modeling**

Kersting, U. G., Oliveira, A. S. C., Lund, M. E., Rasmussen, J. & Farina, D., 2013, *Annual Meeting of the Society for Neuroscience, Neuroscience 2013, 9-13 November 2013, San Diego, CA, USA*. Society for Neuroscience, p. No. 749.30/XX2

### **Mechanical effect of an ankle brace during landing: preliminary kinematic results**

Theodorakos, I., Rüterbories, J., Lund, M. E., Andersen, M. S., de Zee, M. & Kersting, U. G., 2013, *Proceedings of the 14th International Symposium on Computer Stimulation in Biomechanics, ISCSB, 1-3 August 2013, Natal, Brazil*. International Society of Biomechanics, ISB, p. 33-34

### **Scaling musculoskeletal models from dynamic motion capture trials**

Lund, M. E., Andersen, M. S., de Zee, M. & Rasmussen, J., 2013, *ISB 2013, XXIV Congress of the International Society of Biomechanics, 4-9 August 2013, Natal, Brazil [CD-ROM]*. International Society of Biomechanics, ISB, 2 p.

### **Comparing the plug-in gait model output to an individually scaled musculoskeletal model using an extensive normative data set**

Kersting, U. G., Mogensen, P., Lund, M. E. & Nielsen, J. F., 2012, *Proceedings, 4th Annual Meeting of the Danish Society of Biomechanics, 26 October 2012, Aarhus, Denmark*. Aarhus University, p. 7

### **Development of a musculoskeletal model for coffee-grinder design purposes**

Olesen, C. G., Lund, M. E., Sloth, S., Heinen, F., Nedergaard, N. J. & de Zee, M., 2011, *Program & Abstracts, 3rd Annual Meeting of the Danish Society of Biomechanics, 14 October 2011, Odense, Denmark*. Pedersen, K. T. & Søgård, K. (eds.). University of Southern Denmark

### **Prediction of motion in musculoskeletal models**

Rasmussen, J., Olesen, C. G., Lund, M. E., Andersen, M. S., Farahani, S. D. & de Zee, M., 2011, *Proceedings of the ISB Technical Group on Computer Simulation Symposium 2011*. 2 p.

**Så få da den fok hjem!**

Olesen, C. G., Lund, M. E. & Rasmussen, J., 3 Nov 2010

**Prediction of knee loads using a lower extremity model based on the Klein Horsman data set**

Schwartz, C., Lund, M. E., de Zee, M. & Rasmussen, J., 2010, *Proceedings of the ASME [American Society of Mechanical Engineers] 2010 Summer Bioengineering Conference [CD-ROM]: SBC2010*. American Society of Mechanical Engineers, p. 269-270 2 p.

**The use of EMG in the validation of musculoskeletal models**

de Zee, M., Lund, M. E. & Rasmussen, J., 2010, *Abstracts of the XVIII Congress of the International Society of Electrophysiology and Kinesiology, ISEK 2010, 16-19 June 2010, Aalborg, Denmark [CD-ROM]*. Falla, D. & Farina, D. (eds.). Aalborg: Department of Health Science and Technology. Aalborg University

**Validation of musculoskeletal models: the importance of trend validations**

de Zee, M., Lund, M. E., Schwartz, C., Olesen, C. G. & Rasmussen, J., 2010, *IUTAM 2010: IUTAM Symposium on Human Movement Analysis and Simulation, 13-15 September 2010, Leuven, Belgium*. Katholieke Universiteit, Leuven, 2 p.

**Validation of Musculoskeletal Models - Discussions for a PhD study**

Lund, M. E., 2009.

**Automatic detection of renovascular murmurs with an electronic stethoscope: a pilot study**

Lund, M. E., Buur, T. & Schmidt, S., 2008, *Book of Abstracts, Bioengineering 08, 18-19 September 2008, London, UK*. Imperial College London, Department of Bioengineering, p. 167