

Friday 28th July, 2006 cont.

Keynote lecture 2

www.ESM2006.com

13:45 - 14:30 The importance of the foot and ankle in lower extremity function
Hillstrom H J

Session 3 Other applications

www.ESM2006.com

Chairs *Dr. Hillstrom H, Hospital for Special Surgery, New York, NY, USA*
Prof. Steele J, University of Wollongong, Wollongong, NSW, Australia

14:30 - 14:40 Computersimulation of foot surgery using foot models, neuronal networks and gait analysis *Wyss C*

14:40 - 14:50 Plantar pressure measurements to evaluate ankle foot orthoses in hemiplegic stroke patients: a pilot study *Nolan K J, Hillstrom H J, Sisto S A, Elovic E P*

14:50 - 15:00 Changes of plantar pressure distribution of obese children after a weight reduction program *Kostelníková L, Hlaváček P*

15:00 - 15:10 The use of inshoe pressure analysis in the evaluation of running shoes *Clingman R, Arnold G P, Cochrane L, Drew T S, Abboud R J*

15:10 - 15:20 A novel and reliable method to measure toe flexor strength *Mickle K J, Chambers S, Steele J R, Munro B J*

15:20 - 16:00 **Coffee break**

Session 4 novel award Finalists III

www.ESM2006.com

Chairs *Prof. Morlock M, Hamburg University of Technology, Hamburg, Germany*
Dr. Nurse M, Nike Sport Research Laboratory, Beaverton, Oregon, USA

16:00 - 16:25 The influence of metatarsal support height and longitudinal axis position on plantar foot pressures *Brodtkorb T H, Kogler G F, Arndt A*

Session 5 Insole and shoes

www.ESM2006.com

Chairs *Prof. Morlock M, Hamburg University of Technology, Hamburg, Germany*
Dr. Nurse M, Nike Sport Research Laboratory, Beaverton, Oregon, USA

16:25 - 16:35 The influence of heel height on plantar pressure *Cernekova M, Hlavacek P*

16:35 - 16:45 Effective orthotic therapy for the painful cavus foot: A randomized controlled trial *Burns J, Crosbie J, Hunt A, Ouvrier R*

16:45 - 16:55 The inshoe heel inserts: friend or foe?
Manakkalathil C J, Arnold G P, Cochrane L, Abboud R J

16:55 - 17:05 A comparison of insole materials on plantar pressure and comfort in the neuroischaemic diabetic foot *Begg L, Burns J*

17:05 - 17:15 Long term effects of orthotic insoles in rheumatoid arthritis A one-year longitudinal follow-up of barefoot loading
Nagel A, Meyer L H, Schmiegel A, Walter D, Rosenbaum D

17:15 - 17:25 Effect of usual versus therapeutic shoes in the decrease of plantar pressure in diabetic neuropathic subjects *Bacarin T A, Pereira C S, Sacco I C N*

17:25 - 17:30 Closing remarks *Seitz P*



Schliersee lake and 'Wörth' island

Meeting Overview

Tuesday 25th July, 2006

novel workshops
Registration and welcome reception

Wednesday 26th July, 2006

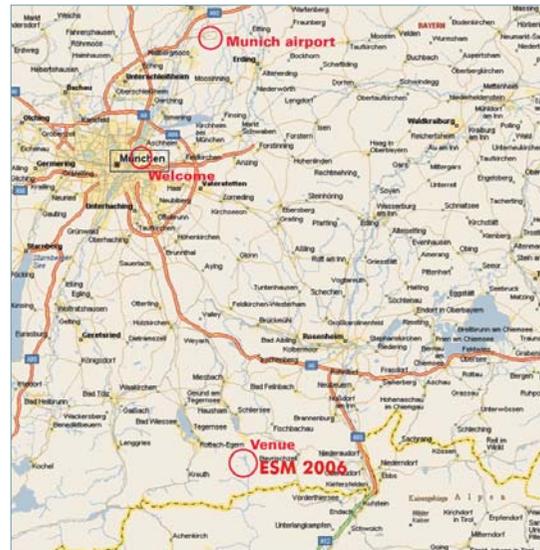
Registration
Scientific Presentations
Dinner at the Stögeralm

Thursday 27th July, 2006

Activity day: hiking or biking in the Bavarian mountains
Dinner: Barbeque at the Island 'Wörth' in Schliersee

Friday 28th July, 2006

Scientific Presentations
Banquet at ArabellaSheraton Alpenhotel with Bavarian traditional music and dance
novel award ceremony



Venue sight

Venue

ArabellaSheraton Alpenhotel
Seeweg 7, Spitzingsee 83727, Germany
tel.: +49 (0)8026 7980
fax: +49 (0)8026 798879
email: alpenhotel@arabellasheraton.com
internet: www.sheraton.de/alpenhotel

Sponsor

novelgmbh
Ismaninger Str. 51
81675, Munich, Germany
tel.: +49 (0)89-41 7767-0
fax: +49 (0)89-41 7767-99
e-mail: novel@novel.de



information subject to change without notice

ProgramESM2006_May19/2006_nl



Program



art in science

Munich, Germany, July 25, 2006
Spitzingsee, July 26 to 28, 2006

www.ESM2006.com

ESM2006 Presentations

Tuesday 25th July, 2006

Welcome to ESM2006 www.ESM2006.com	
10:00 - 21:00	Registration
10:00 - 16:00	novel (GmbH) Workshops (45 minutes each): Workshop I Physics of Pressure Distribution Measurement Workshop II Hardware, Firmware and Measuring Software for PDM Workshop III Analysis Software and Reporting in PDM
17:00 - 21:00	Welcome and registration at Storms Art Gallery Summer Swing jazz music



Wednesday 26th July, 2006

8:30 - 9:30	Registration
Keynote lecture 1 www.ESM2006.com	
9:30 - 10:15	Application of pressure distribution technology in sports and exercises <i>Brüggemann G P</i>
Session 1 Sports www.ESM2006.com	
Chairs Prof. Brüggemann G P German Sport University Cologne, Cologne, Germany Dr. LaFortune M, Nike Sport Research Laboratory, Beaverton, Oregon, USA	
10:15 - 10:25	The influence of different shoe lacing conditions on plantar pressure distribution, shock attenuation and rearfoot motion in running <i>Hagen M, Hennig E M</i>
10:25 - 10:35	Integration of 3D kinematics and pressure distribution measurements for golf swing analysis <i>Kersting U G, Gurney J K</i>
10:35 - 10:45	Influence of long distance running on plantar pressure pattern <i>Nagel A, Fernholz F, Kibele C, Rosenbaum D</i>
10:45 - 11:15	Coffee break
Keynote lecture 2 www.ESM2006.com	
11:15 - 12:00	Clinical gait analysis in trauma and reconstructive surgery - fact or fiction? <i>Mittlmeier T</i>
Session 2 Technology www.ESM2006.com	
Chairs Prof. Mittlmeier T, University of Rostock, Rostock, Germany Dr. Abboud R J, University of Dundee, Dundee, Scotland, UK	
12:00 - 12:10	Subsurface shear stress associated with forefoot skin breakdown on the neuropathic foot <i>Mueller M J, Zou D, Bohnert K L, Sinacore D R</i>
12:10 - 12:20	Determination of the mechano-electrical signal changing properties of soot filled silicones: Possibilities for use in textile pressure sensors <i>Rothstock S, Mämpel J, Witte H, Scheibner W, Feustel M</i>
12:20 - 12:30	Pressure mat for hand-arm vibration on-field testing: hardware, algorithms and interfaces for acquisition and processing <i>Concettoni E, Paone N, Scalise L</i>
12:30 - 14:00	Lunch break
Session 3 novel award Finalists I www.ESM2006.com	
Chairs Prof. Morlock M, Hamburg University of Technology, Hamburg, Germany Pisciotta J, Nike Sport Research Laboratory, Beaverton, USA	
14:00 - 14:25	Mid foot kinetics characterize structural polymorphism in diabetic foot disease <i>Sinacore D R, Bohnert K L, Hastings M K</i>
14:25 - 14:50	Pedobarography and radiographic images in the detection of foot deformities in rheumatoid arthritis <i>Schmiegel A, Vieth V, Gaubitz M, Rosenbaum D</i>
14:50 - 15:15	Pressure distribution of diabetic patients after sensory-motor training with unstable shoe construction <i>Maetzler M, Bochdansky T, Abboud R</i>

Session 4 Poster & Coffee www.ESM2006.com	
15:15 - 16:20	Plantar pressure distribution in patients with Muller Weiss disease <i>Hetsroni I, Nyska M, Ayalon M</i> The impact of different insole arch supports on the changes of foot loading characteristics <i>Badurová J, Rosenbaum D, Nagel A</i> Frontal plane load beneath the calcaneus and relationship to foot type classification <i>Bennett P J, Everson D</i> A comparative study between two pressure mapping systems: FSA versus novel pliance <i>Cochrane L, Fergus K, Arnold G P, Bardsley G, Abboud R J</i> Pressure forces created by the contact of a rider's body on the horse's back during hippotherapy <i>Dvorakova T, Peham C, Janura M</i> Reliability of Pressuressat™ for measuring plantar foot pressures in patients with rheumatoid arthritis <i>Firth J, Turner D E, Smith W, Helliwell P S, Woodburn J</i> Does diabetes interfere with ankle-joint function? <i>Giacomozzi C, Macellari V, D'Ambrogi E, Uccioli L</i> What happens to the contra-lateral foot with diabetic plantar ulceration? <i>Kanade R V, van Deursen R W M, Price P E, Harding K G</i> Is monitoring the amount of steps enough? A new pressure based device for monitoring activity <i>Morey Klapsing G, Camp Fauli A, Poveda Verdú D, Montiel Parreno E</i> Does the hypermobility of the first ray at the foot correlate with a insufficiency and a transfermetatarsalgia on the second ray? <i>Lindenlaub P, Wyss C</i> Measurement of centre of pressure in the standing subject: an alternative to force platforms <i>McLaughlin P A, Best R</i> Plantar pressure pattern in stairs climbing <i>Nagel A, Frerick S, Rosenbaum D</i> Plantar pressure distribution during dynamic load of foot at children with scoliosis diagnosis <i>Pavlačková J, Hlaváček P, Zúrková E</i> The pedar system: normal in-shoe pressure values during gait <i>Putti A B, Arnold G P, Cochrane L, Abboud R J</i> Influence of walking speed on the duration and velocity of the centre of pressure in patients with rheumatoid arthritis <i>Seiple R, Turner D E, Helliwell P S, Woodburn J</i> Dynamic plantar pressure distribution in multiple sclerosis patients with different neurological status <i>Tsvetkova L T, Stolarov D I, Ivko L O, Ilves G A, Abdurahmanov A M, Prakhova N L, Nikiforova G I, Lebedev V V</i> Is disease duration related to foot function, pain and disability in rheumatoid arthritis patients with foot complaints? <i>van der Leeden M, Steultjens M, Dekker J H M, Prins P, Dekker J</i> Estimating subsurface shear stress in the neuropathic foot from plantar pressure distribution <i>Zou D, Sinacore D R, Bohnert K L, Mueller M J</i> Comparison of plantar pressures distribution between obese and non-obese children <i>Hlaváček P, Kostelníková L</i> The influence of varied midsole flexibility in a cricket bowling shoe on plantar loading and player perception <i>McAlpine P R, Kersting U G</i> Measurement of hand forces on vibrating tools: influence of the handle geometry upon calculation of the coupling forces <i>Kaulbars U</i> Modifications of baropodometrie induce by plantar arch stimulation <i>Janin M, Dupui P</i> First metatarsal phalangeal joint flexibility: a quantitative tool for evaluation of hallux limitus <i>Song J S, Whitney K, Heilman B, Kim E, Hillstrom H J</i> Lower longitudinal plantar arch in diabetic neuropathy: effects in plantar pressure during gait <i>Sacco I C N, Bacarin T A, Watari R, Souza L C</i> Biomechanical optimization of orthopedic footwear for diabetic patients using in-shoe plantar pressure measurement <i>Bus S A, Haspels R, van Schie C H M, Moeren P</i> Effect of running and orthopaedic footwear on plantar pressure, pain and perceived comfort in rheumatoid arthritis <i>Hennessy K, Burns J, Penkala S</i> Biomechanics of the foot in rheumatoid arthritis: identifying abnormal function and the factors that predict disease impact <i>Woodburn J, Turner D E, Helliwell P S</i> Gender differences in foot function during walking, running and turning: Implications for overuse injuries in female athletes <i>Wunderlich R E, Griffin N L, Wickham A B</i>



Venue in Spring time

Session 5 Disease www.ESM2006.com	
Chairs Dr. Woodburn J, Glasgow Caledonian University, Glasgow, Scotland, UK Prof. Mueller M J, Washington University School of Medicine, St. Louis, MO, USA	
16:20 - 16:30	What happens to the contra-lateral foot following diabetic foot amputations? <i>Kanade R V, van Deursen R W M, Price P E, Harding K G</i>
16:30 - 16:40	Forefoot joint damage, pain and disability in rheumatoid arthritis patients with foot complaints: the role of plantar pressure and gait characteristics <i>van der Leeden M, Steultjens M, Dekker J H M, Prins P, Dekker J</i>
16:40 - 16:50	Foot loading patterns in children after Ponseti clubfoot treatment <i>Bosch K, Böhm S, Sinclair M F, Rosenbaum D</i>
16:50 - 17:00	Short-term and long-term follow-up of patients with diabetes mellitus with minor amputations <i>Bregovsky B V, Tsvetkova L T</i>
17:00 - 17:10	Long term results of the keller-brandes procedure Is the term "functional amputation" justified? <i>Kranzl A, Kadnar G, Knahr K, Schneider W</i>
17:10 - 17:20	Displacement osteotomy for hallux valgus correction Prospective clinical and pedobarographic study <i>Speiser U, Fengler H, Staemmler A, Hahn U</i>

Thursday 27th July, 2006

Activity day www.ESM2006.com	
8:00 - 21:00	hiking or biking in the Bavarian mountains Barbeque at the Island 'Wörth' in Schliersee

Friday 28th July, 2006

Keynote lecture 1 www.ESM2006.com	
09:00 - 09:45	Bone loss during long duration spaceflight: Is there a biomechanical etiology? <i>Cavanagh P R</i>
Session 1 Motion www.ESM2006.com	
Chairs Prof. Cavanagh P R, The Cleveland Clinic Foundation, Cleveland, Ohio, USA Dr. Rosenbaum D, University Hospital Münster, Münster, Germany	
09:45 - 09:55	Partial weight bearing of total hip patients with a trochanteric osteotomy - Long-term vertical force measurements in and outside the hospital <i>Hurkmans H L P, Bussmann J B J, Selles R W, Benda E, Stam H J, Verhaar J A N</i>
09:55 - 10:05	Pressure distribution and muscular activity on treadmill - downhill - running with an unstable shoe construction and normal running shoes <i>Bochdansky T, Maetzler M, Laube W</i>
10:05 - 10:15	Study of foot dynamic load at inclined plane <i>Zedbazar E, Pavlačková J, Gresák V, Hlaváček P</i>
10:15 - 10:25	Classification of gait alterations in rheumatoid arthritis based on cluster analysis of peak pressure curves <i>Martelli F, Giacomozzi C, Schmiegel A, Nagel A, Rosenbaum D</i>
10:25 - 10:35	Relationship between foot motion and plantar pressures in the diabetic foot <i>Turner D E, Burton K, Helliwell P S, Woodburn J</i>
10:35 - 11:00	Coffee break
Session 2 novel award Finalists II www.ESM2006.com	
Chairs Prof. Morlock M, Hamburg University of Technology, Hamburg, Germany Dr. van Deursen R, Cardiff University, Cardiff, UK	
11:00 - 11:25	Intraoperative pedography - development, validation and clinical use of a novel method for intraoperative biomechanical assessment <i>Richter M, Zech S, Hildebrand F, Vanin N, Schulz-Wildelau C, Droste P, Geerling J, Knobloch K, Krettek C</i>
11:25 - 11:50	Obesity, midfoot plantar pressures and plantar fat pad thickness: Are these parameters related in children? <i>Riddiford-Harland D L, Steele J R, Baur L A</i>
11:50 - 12:15	Intraarticular pressure distribution in the talocrural joint is related to lower leg muscle forces <i>Potthast W, Lersch C, Segesser B, Koebeke J, Brüggemann G P</i>
12:15 - 13:45	Lunch break