

# CONGRESS PROGRAMME

TUESDAY, 10 MAY 2022

TUE

## TIME TOPIC, SPEAKER

10:00–18:00 SYMPOSIUM

Messehaus,  
M25



### Fortbildung für Durchgangsarzte: Unfallbegutachtung in der Gesetzlichen Unfallversicherung (DGUV: Begutachtungswesen)

Chair: Ass. jur. Martin Forchert, Dr.med. Annette Ahrberg-Spiegl

- Administrative principles of causality assessment  
Ass. jur. Martin Forchert
- The medical principles of causality assessment in the statutory accident insurance  
Dr. med. Annette Ahrberg-Spiegl | Prof. Dr. med. Ulrich Spiegl

11:00–12:15 SATELLITE-SYMPOSIUM

CCO, Room 5



### Gonarthrotherapie interdisziplinär

Chair: Dr. med. Stefan Middeldorf, Dr. med. Markus Schneider

In cooperation with Interdisciplinary Society for Orthopaedic & Accident Surgery and General Pain Therapy e.V. (IGOST e.V.)

- Leitliniengerechtes Arthrose-Management  
Dr. med. Stefan Middeldorf
- Arthrosemanagement in der Rehabilitation  
Dr. med. Stefan Middeldorf
- Gonarthrotherapie – Hilfsmittel  
Dr. med. Axel Schulz
- Minimalinvasive nicht-operative Schmerztherapie der Gonarthrose  
Dr. med. Markus Schneider
- Follow-Up-Untersuchung zu Nutzung und Nutzen von Unterschenkelorthesen und Außenranderhöhungen bei Gonarthrose  
Dipl. Ing. Julia Block

11:00–12:15 SATELLITE-SYMPOSIUM

CCO, Room 1



### Arm prosthetics – Treatment variants in everyday life

Chair: Michael Schäfer, Dipl.-Ing. Merkur Alimusaj

In cooperation with Association for Quality Assurance in Upper Limb Prosthetics (VQSA)

- Osseointegrated prosthesis system on the upper arm with TMR (targeted muscle reinnervation) control: Report with example of treatment  
Frank Naumann
- Treatment retrospective after 7 years of TMR  
Wolfgang Gröpel
- Can we do without TMR and osseointegration?  
Example of a myoelectric transhumeral device without TRM or osseointegration  
Joachim Frühauf
- Prosthetic treatment for mountain biking with an ultra short upper arm amputation /shoulder disarticulation  
Ben Kantenich
- Bilateral shoulder disarticulation fittings – Integrating complex systems in everyday life  
Boris Bertram

## TIME TOPIC, SPEAKER

11:00–12:15 SYMPOSIUM

CCO, Room 2



### Digital Transformation in Prosthetics and Orthotics: Manufacturing and Quality

Chair: Claude Tardif

In co-operation with International Society for Prosthetics and Orthotics (ISPO)

- Digital transformation in prosthetics and orthotics  
Prof. Edward Lemaire
- The state of evidence for digital fabrication of P&O: A systematic review and production survey  
Dr. Ben Oldfrey
- Application of digital manufacturing processes in orthotics  
Dr. Jiri Rosicky
- A Mentor based Digital Prosthetic Lab and Strategies for Improving Practitioner Education in both LMICs and HICs  
Jeffrey Erenstone
- Standards and P&O digital transformation  
Prof. Saeed Zahedi

11:00–12:15 FREE PAPER

CCO, Room 4



### Prosthetics: Foot components 2

Chair: Dipl. Ing. Daniel Heitzmann, Dr. Jennifer Ernst

- Design & Evaluation of a Passive, Self-aligning Ankle Prosthesis  
Aman Haque
- Modular ankle – 3D printed custom feet prosthesis system to improve footwear options for persons with lower-limb amputations  
Scott Jurgens
- The rollover behaviour of a 3D printed prosthetic foot compared with conventional designs  
Dipl. Ing. Daniel Heitzmann
- Physiological evaluation of the Talaris Demonstrator: a state-of-the-art passive ankle-foot prosthesis  
Elke Lathouwers
- A concept for classification and prosthetic fittings for patients with a partial foot amputation  
Daniel Sabbagh

11:00–12:15 FREE PAPER

CCO, Room 3



### Foot and foot wear

Chair: Dr. Franz Landauer, Tino Sprekelmeyer

- Balance enhancement by somatosensory vibration in subjects with reduced plantar foot sensation  
Atefeh Aboutorabi
- A novel simple quality improvement tool, visualizing objective human heel inclination and hindfoot motion in the frontal plane when the foot is shoed  
Finn Christian Simonsen
- The effect of sensorimotor insoles on the knee adduction moment during walking: a randomised cross-over study  
Dipl.-Ing. Oliver Umbach
- Study of military footwear comfort, selected size, and lower leg overuse injuries  
Darja Nesterovica
- Cause of pain following arthrorisis surgery for a flexible flat foot  
Dr. Franz Landauer

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## TIME TOPIC, SPEAKER

14:00–14:30 KEYNOTE SPEECH

CCO, Room 1 Kenton Kaufman



**Generating stronger evidence in limb loss and preservation – the establishment of a US registry**

15:00–16:15 SYMPOSIUM

CCO, Room 2 **Osseointegration for Amputee Care – Current possibilities and future directions**



Chair: Vorsitz: Prof. Dr. med. Frank Braatz, Dr. Jennifer Ernst

- Transcutaneous Osseointegrated Prosthetic System for bilateral amputees – facing the challenges, possibilities and limits  
Dr. med. Marcus Örgel
- Periprosthetic Fractures Among Patients with Osseointegration Prosthesis: A Retrospective Review of 518 Cases  
William Lu
- TMR and Osseointegration – a feasible combination procedure for tranhumeral amputees?  
Prof. Dr. med. Frank Braatz
- Novel approaches in Amputation Surgery  
Rickard Bränemark
- Osseointegration – Enabling the future of artificial limbs  
Max Ortiz-Catalan

15:00–16:15 FREE PAPER

CCO, Room 5 **Clinical outcome**



Chair: Dipl. Ing. Daniel Heitzmann, Dr. Stefan Simmel

- COMPASS (Consensus Outcome Measures for Prosthetic and Amputation Services): Outcomes of a Global Consensus  
Prof. Friedbert Kohler
- 3D-Bewegungsanalyse als Methode für die Verlaufskontrolle bei orthetischer Versorgung bei Kindern  
Dr. rer. nat. Juliane Wühr
- Chirurgen, Physiotherapeuten und Orthopädietechniker: Wer ist verantwortlich für gute Stumpfverhältnisse?  
Dr. med. habil. Lutz Brückner

15:00–16:15 FREE PAPER

CCO, Room 3 **Upper limb prosthetics: Evaluation of modern fitting and treatment methods**



Chair: Dr. Dipl.-Ing. Eike Jakobowitz

- Initial experience with the sensing hand prosthesis following TSR (targeted sensory reinnervation) surgery: Indication, technique and early results  
Doz. Dr. Alexander Gardetto
- The predictability of grip movements through neurofunctional representations: A feasibility study  
Dr. Dipl.-Ing. Eike Jakobowitz
- Evaluation of the benefits of new exoprosthetic components for the upper limb – Which prosthesis offers the most substantial benefits?  
Alexander Fürst
- Remote Logging of Real-World Usage Data from Upper Limb Myoelectric Pattern Recognition-Controlled Prosthesis Wearers  
Zachary Wright

## TIME TOPIC, SPEAKER

15:00–16:15 FREE PAPER

CCO, Room 4 **Orthotics: Current functional approaches and concepts in orthotics**



Chair: Dr. Franz Landauer, Dr. Thomas Schmalz

- Incidence of lumbosacral transitional vertebrae (LSTV) in scoliosis  
Dr. Franz Landauer
- The efficacy of anatomical posture control orthosis on the activity of erector spinae muscle and risk of falling in elderly osteoporotic subjects  
Masoumeh Veiskarami
- Nighttime bracing for idiopathic scoliosis – Early start means shorter wearing time  
M. Sc. Christian Grasl
- Functional electric stimulation: Recommendation for a pathology-specific device in comparison and in combination with conventional orthoses  
Aljoscha Diercks
- A passive exoskeleton to relieve the back when lifting: Biomechanical and metabolic effects  
Dr. Thomas Schmalz
- Thoracic outlet syndrome and scoliosis – Extensive correlation? Case reports and literature research  
Frederik Wolvers

16:45–18:00 **Opening Ceremony**

CCO, Room 1



Moderation: Henning Quanz

- Virtual Opening  
Prof. Dr. Karl Lauterbach, Bundesminister für Gesundheit
- Talk  
Alf Reuter, Präsident des Bundesinventionsverbandes für Orthopädie-Technik  
Martin Buhl-Wagner, Geschäftsführer der Leipziger Messe GmbH  
Burkhard Jung, Oberbürgermeister der Stadt Leipzig  
Claude Tardif, Präsident der International Society for Prosthetics and Orthotics  
Dipl.-Ing. (FH) Merkur Alimusaj, Vorsitzender des Programmkomitees 2022  
Prof. Dr. med. Martin Engelhardt, Vorsitzender des Programmkomitees 2022
- Ceremony of René-Baumgartner-Award  
Klaus-Jürgen Lotz, Ehrenpräsident des Bundesinventionsverbandes für Orthopädie-Technik  
Prof. Dr. med. Heinrich Heß, Arzt der deutschen Fußballnationalmannschaft (1974 - 1996)
- Laudatory Speeches  
Alf Reuter, Präsident des Bundesinventionsverbandes für Orthopädie-Technik / Vorstand der Deut. Gesellschaft für interprofessionelle Hilfsmittelversorgung e.V.  
Prof. Dr. med. habil. Wolfram Mittelmeier, 1. Vorsitzender der Deutschen Gesellschaft für interprofessionelle Hilfsmittelversorgung e.V.
- Musical Final  
Prof. Dr. Bertolt Meyer, DJ und Professor am Institut für Psychologie der TU Chemnitz

# CONGRESS PROGRAMME

WEDNESDAY, 11 MAY 2022

WED

## TIME TOPIC, SPEAKER

09:15 – 10:15 COURSE

### CCO, Room 3 **The foot and ankle in sports**



Chair: Prof. Dr. med. Martin Engelhardt

In cooperation with Gesellschaft für Orthopädisch-Traumatologische Sportmedizin e.V. (GOTS)

- Prevention programmes for avoiding sports injuries to the ankle and foot  
Prof. Dr. rer. nat. Matthias W. Hoppe
- Current treatment concepts for ligament instability in the ankle  
Roxa Ruiz
- Hyperpronation – What are the limits of treatment and what can be done?  
Prof. Dr. med. Beat Hintermann
- Achilles tendinopathy – Cause, diagnostics, treatment  
Dr. Thilo Hotfiel
- Orthopaedic shoe technology options for avoiding overload injuries with runners  
Tino Sprekelmeyer

09:15 – 10:15 COURSE

### CCO, Room 4 **Sports prostheses**



Chair: Ingo Pfefferkorn

- Sports prosthesis or everyday prosthesis in sports: Possibilities and limitations  
Reidar Pahl
- Requirements for the design of a lower leg sports prosthesis for competitive sports  
Samuel Wiedmann
- Competition-specific alignment of sprint prostheses following transfemoral amputation  
Dr. Andrea Giovanni Cutti
- Use a Porsche as an all-terrain vehicle? Modern prosthetic treatment and recreational sport  
Jochen Steil

09:15 – 10:15 COURSE

### CCO, Open Forum **Ge(h)spräche – Bewegungsanalyse in der Technischen Orthopädie, ein Online VideoCourse**



Chair: Dipl. Ing. Daniel Heitzmann, Dr. Ursula Trinler, Dipl. Ing. Julia Block

In Kooperation mit der Gesellschaft für die Analyse menschlicher Motorik und ihre klinische Anwendung

- Was sind die Ge(h)spräche– Ideen und Informationen zum Online VideoCourse  
Dipl. Ing. Julia Block
- Recap Ge(h)spräche – was bisher geschah  
Dr. Ursula Trinler
- Das OTWorld 2022 Ge(h)spräch – Questions & Answers und Feedback aus dem VideoCourse  
Dipl. Ing. Daniel Heitzmann, Dr. Ursula Trinler, Dipl. Ing. Julia Block
- Im Ge(h)spräch bleiben – Weiterführende Informationen zur Bewegungsanalyse  
Dipl. Ing. Daniel Heitzmann

## TIME TOPIC, SPEAKER

09:15 – 10:15 COURSE

### CCO, Room 1 **Examination techniques for the foot**



Chair: Dr. Hartmut Stinus

- Examination techniques for the foot  
Dr. Hartmut Stinus

09:15 – 10:15 COURSE

### CCO, Room 2 **Orthotics for idiopathic scoliosis**



Chair: Thomas Mitzenheim, Dr. med. Uwe Platz

In cooperation with Advanced Training Association for Orthopaedic Technology (FOT)

- Medical principles and surgical treatment  
Dr. med. Uwe Platz
- Conservative scoliosis therapy  
Rainer Hilker
- Early nighttime bracing – State of the art?  
Andreas Selle

09:15 – 10:15 COURSE

### CCO, Room 5 **Orthopädie- und Rehabilitationstechnologie in der modernen Paraplegiologie**



Chair: Dr. Daniel Kuhn, Dr. Doris Maier

- Besonderheiten der Hilfsmittelversorgung bei Menschen mit einer Querschnittlähmung  
Dr. Doris Maier
- Versorgungsstrategie am Fallbeispiel – Versorgung eines Paraplegikers  
Dr. Daniel Kuhn
- Versorgungsstrategie am Fallbeispiel – Versorgung eines Tetraplegikers  
Monika Weinrich
- Versorgungsstrategie am Fallbeispiel – die optimale Rollstuhlversorgung  
Sabine Rohmann
- Wohnungsberatung  
Andreas Berghammer

10:45 – 12:00 SYMPOSIUM

### CCO, Room 3 **Innovative concepts for the feet of athletes – Rethinking the shoe and insole**





Chair: Markus Rehm, Tino Sprekelmeyer


- Foot orthoses and/or prefabricated footwear – an individual decision for runners  
Martin Schnetzer
- Effects of an innovative foot orthoses concept on rearfoot loading  
Thomas Stief
- Influence of a 3D laser-printed running insole on running performance  
Imke Pitz
- Running shoes in 2022  
Jörg Matthe
- Orthopaedic device option for pes planovalgus in athletes  
Markus SeeBle

# CONGRESS PROGRAMME

WEDNESDAY, 11 MAY 2022

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TIME	TOPIC, SPEAKER
10:45–12:00	SYMPOSIUM
<b>CCO, Room 2</b>	<b>FES and soft orthoses – what makes sense when?</b> Chair: Prof. Dr. med. Frank Braatz, Ingo Pfefferkorn
 	<ul style="list-style-type: none"> <li>Basics of soft orthoses Claudia Weichold</li> <li>Basics of functional electrical stimulation Prof. Dr.-Ing. Rüdiger Rupp</li> <li>Possibilities and limitations of electrical stimulation orthoses Dr. Harald Böhm</li> <li>Electrical stimulation in water for rehabilitation following paraplegia Dr. Thomas Schauer</li> <li>FES for patients with cerebral palsy: Biomechanics and patient assessment Prof. Dr. Sebastian Wolf</li> <li>FES – interesting case studies in practice Aljoscha Diercks</li> </ul>

10:45–12:00	SYMPOSIUM
<b>CCO, Open Forum</b>	<b>Qualitätsstandards: Wie bringt man Fachexpertise in den bundesweiten Versorgungsalltag?</b> Chair: Dr. med. habil. Lutz Brückner, Michael Schäfer
	<p>In Kooperation mit Deutsche Gesellschaft für interprofessionelle Hilfsmittelversorgung e.V. (DGIHV)</p> <ul style="list-style-type: none"> <li>Qualitätsstandards entwickeln: Wie entwickeln Experten einen Versorgungspfad? Michael Schäfer</li> <li>Qualitätsstandards umsetzen: Wie kann man Patientendaten zielführend und effizient erheben? Olaf Gawron</li> <li>Qualitätsstandards im Versorgungsalltag leben: Wie wird der „Stand der Technik“ kalkuliert und in Krankenkassenverträgen umgesetzt? Albin Mayer</li> </ul>

10:45–12:00	FREE PAPER
<b>CCO, Room 1</b>	<b>Prosthetics: Current functional approaches and the state of the art of osseointegration in the lower limb</b> Chair: MD PhD Hendrik van de Meent, Dipl. OTM Thomas Münch
 	<ul style="list-style-type: none"> <li>Osseointegrated implants in patients with peripheral vascular disease William Lu</li> <li>Safety and performance of bone-anchored prostheses in persons with a transfemoral amputation: A 5-year follow-up study Robin Atallah</li> <li>Osseointegration implant failure and surgical revision in persons with bone-anchored prosthesis after transfemoral amputation Jamal Mohamed</li> <li>Safety and effectiveness of Bone Anchoring Device for Artificial Limbs (BADAL X) in lower limb amputees: A prospective two-year follow-up cohort study Hendrik van de Meent</li> <li>Complication management and Re-operation Rates After Osseointegrated Reconstruction. William Lu</li> <li>Osseointegration 38 years after amputation: Walking again for the first time Dipl. OTM Thomas Münch</li> </ul>

TIME	TOPIC, SPEAKER
10:45–12:00	FREE PAPER
<b>CCO, Room 4</b>	<b>Prosthetics: Biomechanics and outcomes in lower limb prosthetics</b> Chair: Siu-Teing Ko, Malte Bellmann
 	<ul style="list-style-type: none"> <li>Reduction of phantom pain with a TSR-based surgical technique: Case series with eight patients following lower-limb amputation Alexander Gardetto</li> <li>A new 3-D biomechanical simulation approach for an evidence-based comfort assessment of prosthetic sockets Animesh Ranjan</li> <li>A Novel Simulation-Based Workflow for the Planning of CFRP Layup in Prosthetic Sockets for the Lower Extremity Armagan Can Yildiz</li> <li>Energy consumption measurements with prostheses or orthoses: What is a suitable study design? Malte Bellmann</li> <li>A toolbox for bi-directional conversions between 3D prosthetic socket stress measurements and its representations in 2D Siu-Teing Ko</li> </ul>

10:45–12:15	SYMPOSIUM
<b>Messehaus, M25</b>	<b>Fortbildung für Durchgangsarzte: Rehabilitation und Hilfsmittel in der gesetzlichen Unfallversicherung (DGUV: Rehabilitationsmanagement, Teil 1)</b> Chair: Dr. Klaus Fische, Dr. Stefan Simmel
	<ul style="list-style-type: none"> <li>Hilfsmittelversorgung aus Sicht der DGUV Ralf Rensinghoff</li> <li>Orthopädische Schuhversorgung aus Sicht der Schuhberatungsärztin Sabine Drisch</li> <li>Evaluation des Gebrauchsvorteils neuer Exoprothesen Dr. Stefan Simmel</li> <li>Exoprothesen-Rehabilitation der BG-Kliniken Dr. Klaus Fischer</li> </ul>

12:30–13:30	ePOSTER EXHIBITION   PERMANENTLY AVAILABLE
<b>CCO, Room 3</b>	<b>Poster presentations with short lectures: Prosthetics, Digitalisation, Biomechanics, Paediatric Orthopedics/ Paediatric treatment</b> Chair: Olaf Gawron, Ingo Pfefferkorn
	<ul style="list-style-type: none"> <li>Radiological signs of osteoarthritis of hip and knee in lower limb amputees that apply for bone anchored prostheses Jamal Mohamed</li> <li>Evaluation of a new, patient-adjustable socket system in early prosthetic rehabilitation: a pilot study Russ Lundstrom</li> <li>I.N.E.S.S. – Innovative Edge Silicone System Stéphane Paillet</li> <li>Simultaneous intra-socket shear and pressure measurements of a transfemoral amputee during dynamic and static activities: a feasibility study Siu-Teing Ko</li> <li>Bewegungstraining nach TMB (Targeted Muscle Benefit) – TMR in der Unteren Extremität Ralf-Thomas Münch</li> <li>Analyse des Effekts der prothetischen Versorgungsart auf funktionelle Tests und Fragebögen mit Selbstausskunft bei Patienten mit Oberschenkelamputation Arne Schlausch</li> </ul>

# CONGRESS PROGRAMME

WEDNESDAY, 11 MAY 2022

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TIME	TOPIC, SPEAKER
	<ul style="list-style-type: none"> <li>Prosthetic user experience and satisfaction of unilateral transtibial amputee Emre Çayirli</li> <li>Transfemoral bionic bone-anchored prostheses: What is the margin of safety of load applied by state-of-the-art components? Laurent Frossard</li> <li>A case study of bilateral congenital lower limb in a 29 month old congenital child Ayman Amer</li> <li>Complex Regional Pain Syndrome Treated With Above Knee Amputation And Osseointegration William Lu</li> <li>Osseointegration for Diabetic Patients: The Risk of Infection versus the Reward of Mobility William Lu</li> <li>Osseointegration Outcomes following Amputee Lengthening William Lu</li> <li>Safety of osseointegrated implants for Transtibial amputees William Lu</li> <li>An open-source digital fabricated sensor-based diabetic foot monitoring system usable for orthoses treatment Paula Janecke</li> <li>Evaluation einer App-basierten Gesundheitsanwendung bei Patienten mit verschiedenen orthopädischen Beschwerdebildern Jonas Wölm</li> <li>Zusammenhänge zwischen Digitalität und Diversität: Welche Chancen und Herausforderungen bieten Digitalität und Diversität in der Gesundheitswirtschaft? Daniel Behm</li> <li>Longitudinal Foot Arch Detection via Convolutional Neural Network Based on Center of Pressure Trajectory Monireh Ahmadi Bani</li> <li>Kontrollmethode zur Therapieverfolgung und Dokumentation bei Pectus Carinatum Dipl.-Orth. Prot. Andreas Würsching</li> </ul>

12:30–13:30 ePOSTER

TIME	TOPIC, SPEAKER
12:30–13:30	<p><b>CCO, Foyer</b> <b>Poster presentations – without Lectures</b></p> <ul style="list-style-type: none"> <li>Effectiveness of the Erigo therapy on secondary complications after neurological injuries in acute stages: a literature review Maryam Maleki</li> <li>Influence of phantom pain in spanish lower limb amputees Bibiana Trindade de Almeida</li> <li>Ground reaction ankle-foot orthoses for correction of crouch gait in children with cerebral palsy (Case Study) Pravin Verma</li> <li>Klinische Outcome Measures: Sind die verfügbaren Instrumente zur Differenzierung von Prothesenkniegelenken u. -füßen geeignet? Annika Dlugoszek</li> <li>A case study of bilateral congenital lower limb in a 29 month old congenital child Ayman Amer</li> <li>The effect of two ankle foot orthoses (AFO's) in drop foot Gonçalo Morais</li> <li>Health-related quality of life and safety in persons with a bone-anchored prosthesis: a prospective two-year follow-up cohort study Charlotte van Vliet-Bockting</li> </ul> <p>The ePosters are permanent displayed on large screens in the CCO.</p>

TIME	TOPIC, SPEAKER
14:00–14:30	KEYNOTE SPEECH
CCO, Room 1	<p><b>The digital transformation: Opportunities and risks for people with disabilities</b> Prof. Dr. Bertolt Meyer</p>

TIME	TOPIC, SPEAKER
15:00–16:15	SATELLITE-SYMPOSIUM
CCO, Room 2	<p><b>Current approaches in the rehabilitation of patients with paraplegia</b> Vorsitz: Dr. med. Marion Saur, Alf Reuter</p> <p>In cooperation with German-speaking Medical Association for Paraplegiology (DMGP)</p> <ul style="list-style-type: none"> <li>Assistive neurotechnology for the rehabilitation of people with paraplegia – Whats new? Prof. Dr.-Ing. Rüdiger Rupp</li> <li>S2e guideline: Findings on initial treatment after recently acquired paraplegia Dr. med. Anke Scheel-Sailer</li> <li>FES in paraplegic patients Ines Bersch-Porada</li> <li>FGQ (support association for paraplegics) – Efficient and non-profit Jens Sauerbier</li> </ul>

TIME	TOPIC, SPEAKER
15:00–16:15	SYMPOSIUM
CCO, Room 1	<p><b>Paediatric (neuro)orthopaedics: Current surgical procedures and treatment concepts</b> Chair: Dipl.-Ing. Merkur Alimusaj, Prof. Dr. Sébastien Hagmann</p> <ul style="list-style-type: none"> <li>Malalignment and surgical axis correction of the musculoskeletal system for neuro-orthopaedic conditions Prof. Dr. Sébastien Hagmann</li> <li>Objective surgical planning and evaluation of progress using instrumental gait analysis Dr. Marco Götte</li> <li>Orthopaedic devices for the lower limb for neuro-orthopaedic conditions Claudia Weichold</li> <li>Functional approaches in the treatment of neurogenic spinal deformity in children – sitting – lying – walking Dr. Franz Landauer</li> <li>Orthopaedic devices for the trunk in childhood for primary neurogenic diseases Alexander Drehmann</li> </ul>

TIME	TOPIC, SPEAKER
15:00–16:30	SYMPOSIUM
CCO, Room 5	<p><b>Fortbildung für Durchgangszärzte: Brandverletzungen – Update (DGV: Rehabilitationsmanagement, Teil 2)</b> Chair: Dr. Hans Ziegenthaler, Lars Jäger</p> <ul style="list-style-type: none"> <li>Innovationen Primärbehandlung – enzymatisches Debridement Prof. Dr. med. Frank Siemers</li> <li>„Scannen versus messen“ in der Nachbehandlung von Brandverletzten Patrick Meier</li> <li>Der besondere Fall: Ein Beispiel für interdisziplinäre Zusammenarbeit – Schwerbrandverletztzentrum Prof. Dr. Thomas Kremer</li> <li>Der besondere Fall: Ein Beispiel für interdisziplinäre Zusammenarbeit – Rehabilitation Dr. Hans Ziegenthaler</li> </ul>

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TIME	TOPIC, SPEAKER
	<ul style="list-style-type: none"> <li>• Der besondere Fall: Ein Beispiel interdisziplinäre Zusammenarbeit – Orthopädie-Technik Frank Naumann</li> <li>• ICF-orientierte Rehabilitation nach thermischem Trauma – vorläufige Ergebnisse einer multizentrischen prospektiven klinischen Evaluationsstudie Dr. Hubert Neubauer</li> <li>• Rehabilitation der brandverletzten Hand Priv. Doz. Dr. med. Michael Steen</li> </ul>

15:00–16:15 FREE PAPER

### CCO, Room 3 Rehabilitation



Chair: Dr. med. Stefan Middeldorf, Dipl. Ing. Daniel Heitzmann

- "HOT" the Heidelberg Obstacle Trail as a combined measuring instrument for assessing the mobility of persons following a leg amputation  
Dipl. Ing. Daniel Heitzmann
- Which rehabilitation process for an innovative lower limb prosthesis? A multi-player approach.  
Laurine Calistri
- Comparison of the decomposed and superimposed electromyogram for analysing muscle fatigue  
Sarah Langer
- Incidence of major leg amputations during COVID-19 pandemic: epidemiological data obtained through reimbursement information system  
Jan Paul Frölke
- Knee disarticulation in critical ischemia: knowledge gap in Dutch National guideline Amputation and Prosthetics 2020  
Dr. Jan Paul Frölke

15:00–16:15 FREE PAPER

### CCO, Room 4 Orthotics: Therapy and fabrication



Chair: M. Sc. Christian Grasl und Dr. Stefan Simmel


- Controlled dynamic stretching orthotics for joint contracture treatment in children and adolescents  
Lieske van der Stam
- AFO alignment, stiffness, and pre-load torque uniquely influence biomechanical variables in gait  
Nicholas LeCursi
- Immediate effects of counterforce brace with and without vibration on pain, muscle strength and range of motion in patients with lateral epicondylitis  
Forough Dehghani
- Effect of dynamic contracture and tone management following Low Load Prolonged Stretch to obtain an increase of ROM in the lower limb  
Flora Versyck
- Developing tests for assessing the safety of 3D printed devices  
Maxim Kirillov
- Helmet moulding therapy for infants with skull asymmetry  
Christian Grasl

15:00–16:00 FACTORY TALK

### CCO, Open Forum Einlagenversorgung im Hochleistungssport



- Ist bei den Profis alles anders? – Einlagenversorgungen im Hochleistungssport  
Stefan Woltring

TIME	TOPIC, SPEAKER
16:45–18:00	SYMPOSIUM
CCO, Room 3	<b>Amputation and prosthetic treatment in the pelvic region</b>  Chair: Prof. Dr. med. Dipl. Oec. Bernhard Greitemann, Olaf Gawron <ul style="list-style-type: none"> <li>• Amputation in the pelvic region – Traumatology approach Patrick Schröter</li> <li>• Amputation in the pelvic region – Tumour surgery Prof. Dr. med. Jendrik Harges</li> <li>• Prosthetic fitting after amputations in the pelvic region Tim Baumeister</li> <li>• Hip Disarticulation and Hemipelvectomy – Survey of Social Participation and Quality of Life including 7-Year-Follow Up-Data Dipl. Ing. Julia Block</li> </ul>

16:45–18:00 SATELLITE-SYMPOSIUM

### CCO, Room 2 Evidence in Prosthetics – Outcome Measures and Registry Studies – A new Way in USA and Germany



Chair: Dipl.-Ing. Merkur Alimusaj, Brian Kaluf

In cooperation with The American Academy of Orthotists & Prosthetists

- Outcome Measure Motivation: Focus on the Individual  
Brian Kaluf
- How to Use Outcome Measure Data for Individuals and Aggregate Populations  
Eric Weber
- Emerging Evidence-based Care and Outcome Measure Treatment Approaches  
Robert Gailey
- Limb Loss and Preservation Registry  
Kenton Kaufman
- Towards evidence based amputee care, challenges and needs  
Dr. med. Urs Schneider

16:45–18:00 GLOBAL INTERDISCIPLINARY LEADERS

### CCO, Room 4 State-of-the-art care of diabetic foot disease by an interdisciplinary team




Chair: Prof. Dr. Sicco A. Bus

- Biomechanics of the diabetic foot and custom-made footwear: state-of-the-art design principles  
Prof. Dr. Sicco A. Bus
- The person with diabetes wearing custom-made footwear: importance of adherence, perception and communication  
Jaap van Netten
- How do the doctor, shoe technician and researcher collaborate and help each other to run a busy outpatient diabetic foot clinic?  
Dr. Tessa Busch

# CONGRESS PROGRAMME

WEDNESDAY, 11 MAY 2022











WED

TIME	TOPIC, SPEAKER
16:45 – 18:00	FREE PAPER
CCO, Room 1	<b>Prosthetics: Outcome measures from an international point of view</b> Chair: Prof. Friedbert Kohler, Michael Schäfer
	<ul style="list-style-type: none"><li>• Reference values of selected self-reported and performance-based outcome measures for transfemoral and transtibial amputees Pawel Maciejasz</li><li>• Checklist use for assessment of satisfaction with trans-tibial prostheses. Erwin C. T. Baars</li><li>• Normative data and differences in the use of the Amputee Mobility Predictor (AMP) in the assignment of K-Level for Lower Limb Amputees. Russ Lundstrom</li><li>• LEAD (Lower Extremity Amputation Dataset): Outcome of a Global Consensus Friedbert Kohler</li><li>• Activity and quality of life following transfemoral amputation Sabine Drisch</li></ul>

# CONGRESS PROGRAMME

THURSDAY, 12 MAY 2022

THU

TIME	TOPIC, SPEAKER
09:15–10:15	COURSE
<b>CCO, Room 4</b>	<b>Special features of neurological foot deformities in an interdisciplinary context</b> Dr. med. Christine Bollmann
 	<ul style="list-style-type: none"><li>• Neurogenic foot deformities from the viewpoint of paediatric orthopaedics Dr. med. Christine Bollmann</li><li>• Neurogenic foot deformities from the viewpoint of physiotherapy Katrin Reinhardt</li><li>• Neurogenic foot deformities from the viewpoint of orthopaedic technology Christina Kolbe</li></ul>
09:15–10:15	COURSE
<b>CCO, Room 2</b>	<b>Neurostimulation</b> Chair: Jochen Steil
 	<ul style="list-style-type: none"><li>• Specific analysis of multiple sclerosis and resulting optimal orthosis fitting, particularly applications with and without FES Sabine Lamprecht</li><li>• Functional electric stimulation = foot flexor system? The device combining electric stimulation and orthosis shows promising potential Aljoscha Diercks</li><li>• Electric stimulation (FES) in customised hand orthotics Jochen Steil</li></ul>
09:15–10:15	COURSE
<b>CCO, Room 1</b>	<b>Examination technique for the residual limb</b>
 	<ul style="list-style-type: none"><li>• Hands-on examination of the residual limb Prof. Dr. med. Dipl. Oec. Bernhard Greitemann</li></ul>
09:15–10:15	COURSE
<b>CCO, Open Forum</b>	<b>Breitensport – Voraussetzungen und Wege zur Einlagenversorgung</b> Stefan Woltring
	
09:15–10:15	COURSE
<b>CCO, Room 3</b>	<b>Lipoedema / Lymphoedema</b> Chair: Thomas Mitzenheim, Dr. Alexander Florek
 	<p>In cooperation with Advanced Training Association for Orthopaedic Technology (FOT)</p> <ul style="list-style-type: none"><li>• Lipoedema / Lymphoedema – Classification, course, surgical treatment Alexander Florek</li><li>• Outpatient and inpatient rehabilitation – Therapy in a multiprofessional team Dr. med. Achim Richter</li><li>• Medical compression therapy: What? When? How? Monika Reder</li></ul>
09:15–10:15	COURSE
<b>CCO, Room 5</b>	<b>Workshop Digitalisierung</b> Michael Krämer, Maria Köhlitz
	

TIME	TOPIC, SPEAKER
10:45–12:00	SPECIALIST WORKSHOP
<b>CCO, Room 1</b>	<b>Material 2025: Material science in orthopaedic technology – part 1</b> Chair: Michael Schäfer, Dipl.-Ing. Merkur Alimusaj
 	<ul style="list-style-type: none"><li>• Comparison of strengths of various fibre-reinforced materials Ludger Lastring</li><li>• Fibre-reinforced materials, their processing and applications in orthopaedic technology Prof. Dr.-Ing. Marc Siebert</li><li>• Silicones and their applications in orthopaedic technology Michael Schäfer</li></ul>
10:45–12:00	COURSE
<b>CCO, Room 5</b>	<b>Fortbildung für Mediziner: BasisCourse Amputationschirurgie – wie geht man vor Teil 1- Basistechniken untere Extremität</b> Chair: Prof. Dr. med. Dipl. Oec. Bernhard Greitemann, Dr. med. Dipl. Sportl. Rainer Eckhardt
	<p>Basiskurs der Initiative '93   Schirmherrschaft: Berufsverband für Orthopädie und Unfallchirurgie e.V. (BVOU)</p> <ul style="list-style-type: none"><li>• Amputation am Fuß Dr. Tymoteusz Budny</li><li>• Amputationen am Unterschenkel Dr. med. Dipl. Sportl. Rainer Eckhardt</li><li>• Knieexartikulation, transfemorale Amputation, Amputationen im Bereich des Beckens Prof. Dr. med. Dipl. Oec. Bernhard Greitemann</li></ul>
10:45–12:00	SATELLITE-SYMPOSIUM
<b>CCO, Room 2</b>	<b>Sports and orthotics</b> Chair: Dr. Casper Grim, Prof. Dr. Romain Seil
 	<p>In cooperation with Gesellschaft für Orthopädisch-Traumatologische Sportmedizin e.V. (GOTS)</p> <ul style="list-style-type: none"><li>• Importance of sports for better quality of life Prof. Dr. med. Martin Engelhard</li><li>• Why is preventing sports injuries so important? Prof. Dr. Romain Seil</li><li>• Orthotic devices in sports – lower limb Dr. Thilo Hotfiel</li><li>• Orthotic devices in sports – upper limb Univ.-Prof. Dr. med. Thomas Tischer</li><li>• What does the IAT Leipzig do for para sports? Prof. Dr. rer. nat. Olaf Ueberschär</li></ul>
10:45–12:00	SYMPOSIUM
<b>CCO, Open Forum</b>	<b>Wichtige Aspekte der Biomechanik in der Orthopädie-Technik – ein Überblick</b> Chair: Prof. Dr. med. Frank Braatz, Prof. Dr. rer. nat. habil. Siegm. Blumentritt
	<ul style="list-style-type: none"><li>• Biomechanik: Entwicklung(-en) in der Orthopädietechnik über die letzten Jahrzehnte Prof. Dr. rer. nat. habil. Siegm. Blumentritt</li><li>• Metabolische Energieverbrauchs-messungen in der Orthopädie-Technik – Sinn oder Unsinn? Dr. Thomas Schmalz</li><li>• Development of energy transfer between patient and prosthesis in daily routine and in competitive sports Malte Bellmann</li><li>• Biomechanik im Orthobionik-Studium Markus Müller</li><li>• Wie viel Biomechanik braucht der Arzt? Prof. Dr. med. Frank Braatz</li></ul>



# CONGRESS PROGRAMME

THURSDAY, 12 MAY 2022

THU

## TIME TOPIC, SPEAKER

10:45–12:00 FREE PAPER

**CCO, Room 3 Orthotics: Biomechanical principles of lower limb orthotics**



Chair: Daniel Sabbagh, Dr. Jennifer Ernst

- Powered AFO: Results of development of a power orthosis for spastic conditions  
Daniel Merbold
- Influence of ankle foot orthoses on the gait stability of patients with infantile cerebral palsy  
Magnus Reulbach
- Biomechanical benefit of a freely moving system knee joint with a dynamic extension stop – A case study  
Daniel Sabbagh

10:45–12:00 FREE PAPER

**CCO, Room 4 Digitalisation in orthopaedic technology: From diagnosis to production**



Chair: Dipl.-Ing. Axel Sigmund | Dipl.-Ing. (FH) Daniel Heitzmann

- Spotify, Uber & Co. – Global networking in orthopaedic technology as well?  
Bianca Weber
- Randomised controlled study of a 12-week app and orthosis supported training intervention for patients with osteoarthritis of the knee  
Valerie Dieter
- A smart textile as an alternative to plaster molding  
Corentin Féry
- Digital approach to treatment following a hip disarticulation  
Verena Bach
- Validation of a parametric model of scoliosis  
Briac Colobert
- VarioFit: Development of a transportable method for the guided adjustment of lower limb exoprostheses  
Daniel Merbold

12:30–13:30 ePOSTER EXHIBITION | PERMANENTLY AVAILABLE

**CCO, Room 3 Poster presentations with short lectures: Orthotics, Open topics, Foot and Shoe, Rehabilitation, Rehab Technologies**



Chair: Dr. Franz Landauer | Thomas Stief | Prof. Dr. med. Frank Braatz

- Orthesenversorgung der adulten Skoliose  
Rainer Hilker
- Einfluss der Applikation einer Gangjustierhilfe auf die Aktivität der Unterschenkelmuskulatur  
Prof. Dr. med. Christoph Anders
- The effect of elderly specific spinal orthoses on balance control and walking characteristics in elderly subjects  
Masoumeh Veiskarami
- Cervical Thoracic Orthosis (CTO) for Treatment of Antecollis and Pisa syndrome in Parkinson disease: A Case report  
Narudon Batasook
- Comparison of three different orthoses on the effects of pain and daily function of carpometacarpal thumb arthrosis  
Sofie Goeminne
- Prevention of cranial hemorrhage in patients undergoing craniotomy using helmet orthosis  
Mohammadali Abbaspour
- Nachhaltige Orthopädiwerkstatt – Utopie oder längst Realität? Status Quo und Lösungsansätze für eine nachhaltigere Branche  
Bianca Weber

## TIME TOPIC, SPEAKER

- Gestrickte prothetische Socken – zu mehr Komfort mit Naturmaterialien  
Prof. Tina Moor
- Beeinflussung ausgewählter HRV-Parameter durch das Tragen einer Gangjustierhilfe in Sicherheitsschuhen Produktionsarbeitern in der Spätschicht  
Prof. Dr. med. Christoph Anders
- Three-dimensional testing of orthopedic devices with a robotic test system  
Dipl. Ing. Thanh-Duc Nguyen
- Settings protocols for screening spinal pathologies  
Taremwa Jenan
- A review of effect of foot orthoses and shoe characteristics on balance in healthy elderly  
Atefeh Aboutorabi
- The effect of shoe modification on wound care in diabetic patients: a literature review  
Atefeh Aboutorabi
- Pedorthic information modeling  
Daniel Petcu
- The effect of a mechanical stance control orthosis in rehabilitation in order to improve standing, walking and activities of daily living  
Flora Versyck
- Ergebnisse der Veränderungen von Gangbildparametern durch Kinesiotape im Rahmen eines 50 m Gangtests  
Marcus Neupert
- Effect of vibration on postural control and gait of elderly subjects: a systematic review  
Atefeh Aboutorabi

14:00–14:30 KEYNOTE SPEECH

**CCO, Room 1 TMR and Osseointegration**



Univ. Prof. Dr. med. Oskar Aszmann, Agnes Sturma

15:00–16:15 COURSE

**CCO, Room 5 Fortbildung für Mediziner:**



**BasisCourse Amputationschirurgie – wie geht man vor Teil 2: obere Extremität und Stumpfkorrekturen**

Chair: Prof. Dr. med. Dipl. Oec. Bernhard Greitemann | Dr. med. Dipl. Sportl. Rainer Eckhardt

Basiskurs der Initiative '93 | Schirmherrschaft: Berufsverband für Orthopädie und Unfallchirurgie e.V. (BVOU)

- Amputationen an der oberen Extremität  
Patrick Schröter
- Indikationen für Stumpfkorrekturen  
Prof. Dr. med. Dipl. Oec. Bernhard Greitemann
- Chirurgische Techniken zur Stumpfverbesserung unter Einbezug der Nerven  
Dr. Jennifer Ernst

# CONGRESS PROGRAMME

THURSDAY, 12 MAY 2022

THU

## TIME TOPIC, SPEAKER

15:00–16:15 SYMPOSIUM

### CCO, Room 3 **Amputations in young people: requirements and special aspects**



Chair: Dr. Burkhard Lehner, Dipl.-Ing. Merkur Alimusaj

- Special aspects of surgery and treatment of patients with soft tissue and bone tumours  
Dr. Burkhard Lehner
- Special surgical techniques in reconstructive and amputation surgery  
Prof. Dr. Jonas Kolbensschlag
- Preservation or amputation of limbs – Where do we stand?  
Dr. Steffen Langwald
- Sports activity and quality of life following a major amputation of the lower limb  
Dr. med. Astrid Schenke
- Special demands on prostheses for non-vascular related amputation  
Dipl.-Ing. Merkur Alimusa

15:00–16:15 SYMPOSIUM

### CCO, Room 4 **The psyche and medical devices**



Chair: Lars Jäger, Prof. Dr. med. habil. Wolfram Mittelmeier

In cooperation with German Society for Treatment with Orthopaedic Devices e.V. (DGIHV)

- Adherence in scoliosis treatment?  
Dr. med. Herbert Raddatz
- Adaptation and psychological limitation in exoprosthesis treatment  
Dr. Dörthe Lison
- Adherence in orthosis treatment: Problem and solutions in practice  
Prof. Dr. med. habil. Wolfram Mittelmeier
- Endo-exoprosthesis – Who is suitable?  
Patrick Schröter

15:00–16:15 FREE PAPER

### CCO, Room 1 **Prosthetics: Knee components**



Chair: Daniel Merbold, Dr. Andreas Hahn

- Lower limb amputee knee mechanics over gradients and the implications for prosthetic design  
Katherine Davies
- VarioKnie: The first MP joint with variable axis geometry  
Daniel Merbold
- The effect of microprocessor-controlled exoprosthetic knees on limited community ambulators: Systematic review and meta-analysis  
Dr. Andreas Hahn
- Prosthetic knee joints for running, sprinting and jumping: Possibilities and limitations from a biomechanical perspective  
Dr. Thomas Schmalz
- The added clinical value of prosthetic knee joint functions and biomechanical parameters – Is there a correlation?  
Malte Bellmann

15:00–16:15 COURSE

### CCO, Open Forum **MOOC – Introduction Massive Open Online Course “Amputee Care: Prosthetics Treatment and Technologies”**



Dr. med. Urs Schneider, Prof. Michael Goldfarb, Levi Hargrove

## TIME TOPIC, SPEAKER

15:00–16:15 FREE PAPER

### CCO, Room 2 **Biomechanics and other quantitative measures in prosthetics and orthotics**



Vorsitz: Prof. Dr. med. Frank Braatz, Prof. Dr.rer.nat. Dipl.-Phys. Jörg Subke

- The preoperative femoral abduction angle correlates with temporary postoperative hip pain in transcutaneous osseointegrated prosthetic systems  
Dr. Dr. med. Alexander Ranker
- The Use of Osseointegrated Titanium Implants to Treat Bilateral Amputees  
William Lu
- Press-Fit Osseointegrated Reconstruction and Rehabilitation of Above Knee Amputees – Outcomes and Complications with a Minimum 5-year Follow-up  
William Lu
- Oxygen consumption and gait dynamics in transfemoral bone-anchored prosthesis users compared to socket-prosthesis users: a cross-sectional study  
Vera Kooiman
- Multidimensional analysis of an innovative adaptive system compared with a conventional passive protective system to prevent ankle joint trauma  
Prof. Dr. Steffen Willwacher
- Determining the extent of osteoarthritic lesions in the knee joint using sound emission analysis (SEA) for planning orthopaedic devices  
Prof. Dr.rer.nat. Dipl.-Phys. Jörg Subke

16:45–18:00 SATELLITE-SYMPOSIUM

### CCO, Room 4 **Interdisciplinary consultation: Providing devices for cerebral palsy while considering ICF aspects in an interdisciplinary team**



Chair: Dr. med. Björn-C. Vehse, Thomas Becher

In cooperation with International Children's and Youngsters' Rehabilitation Network rehaKIND

- Interdisciplinary surgery from the viewpoint of neuro-paediatrics  
Thomas Becher
- Interdisciplinary surgery from the viewpoint of (paediatric) orthopaedics  
Dr. med. Björn-C. Vehse
- Interdisciplinary surgery from the viewpoint of occupational therapy  
Andrea Espei
- Interdisciplinary consultation from the perspective of orthopaedic technology and orthopaedic shoe technology  
Gunnar Kandel

16:45–18:00 SYMPOSIUM

### CCO, Open Forum **Amputation and prothetische Versorgung – Interdisziplinarität in der Ausbildung**



Chair: Prof. Dr. med. habil. Wolfram Mittelmeier

- Handwerk und Unternehmertum: Aus- und Weiterbildung OT  
Lars Grun
- Technische Orthopädie für Mediziner  
Prof. Dr. med. Dipl. Oec. Bernhard Greitemann
- Bedeutung der interdisziplinären Zusammenarbeit  
Johanna Pleus
- Weiterbildung, Meisterqualifikation und Studium  
Lars Grun
- Studium und interdisziplinäres Team  
Markus Müller

# CONGRESS PROGRAMME

THURSDAY, 12 MAY 2022

THU

## TIME TOPIC, SPEAKER

16:45–18:00 SYMPOSIUM

**CCO, Room 1** **TMR, osseointegration – Does success depend on aftercare?**



Chair: Dr. Franz Landauer, PhD Harmen van der Linde

- Osseointegration and exoprostheses for the upper limb – Requirements for the prosthesis, what functions can be controlled?  
Dr. Jennifer Ernst
- Bone-anchored prosthesis: Lower extremity – Rehabilitation, prosthetic components, and alignment  
Ruud Leijendekkers
- Postoperative treatment concepts in comparison (meta-analysis)- what makes sense, what has to be considered during post operative treatment?  
Priv. - Doz. Dr. med. habil. Christoph Schulze
- TMR – Requirements related to the exoprosthesis, how many functions are useful and controllable?  
Univ. Prof. Dr. med. Oskar Aszmann

16:45–18:00 SYMPOSIUM

**CCO, Room 3** **COVID-19 – the next pandemic is only a matter of time**



Chair: Univ.-Prof. Dr Wilhelm Bloch, Prof. Dr. PhD Iris Reuter

- Pathophysiology of COVID-19, long COVID  
Prof. Dr. med. Johannes Scherr
- COVID-19 – Post-acute COVID syndrome and performance  
Univ.-Prof. Dr. Wilhelm Bloch
- Impact on Paralympic sports  
Prof. Dr. Anja Hirschmüller
- Consequences for people with severe neurological disabilities – a study  
Prof. Dr. PhD Iris Reuter
- How were disabled persons affected?  
Dr. Matthias Schmidt-Ohlemann

16:45–18:00 FREE PAPER

**CCO, Room 2** **Prosthetics: socket technology in lower limb prosthetics**



Chair: Prof. Dr. med. Frank Braatz, Olaf Gawron

- Transfemoral Socket Fabrication Method Using Direct Casting: Outcomes Regarding Patient Satisfaction With Device and Service  
Christian Smith
- The Milwaukee TF socket: Improved mobility and comfort of the prosthetic socket  
Michael Günther
- Clinical outcome of transfemoral direct socket interface (Part 2)  
G. Anton Johannesson
- Trans-femoral Flexible sockets: balancing flexibility, rigidity, optimized fabrication, and cost  
Youssef Salam
- New prosthetic socket system for above-knee amputees: The vacuum pressure socket system (VPS system)  
Tobias Vogel

## TIME TOPIC, SPEAKER

17:00–18:00 FACTORY TALK

**CCO, Room 5** **Rollstuhl und Co. – Service, Wartung, Betriebsabläufe**



Chair: Norbert Stockmann

- Rollstuhl und Co. – Service, Wartung, Betriebsabläufe  
Julia Verbeek, Sven Burmeister

# CONGRESS PROGRAMME

**FRIDAY, 13 MAY 2022**
**FRI**

## TIME TOPIC, SPEAKER

09:15–10:15 COURSE

**CCO, Open Forum**


### Zehendeformitäten – Pathologie, Diagnostik, konservative und operative Therapie

Chair: Dr. med. Jörn Dohle

In Kooperation mit Deutsche Assoziation für Fuß und Sprunggelenk e.V. (D.A.F.)

- Fehlstellungen am ersten Zehenstrahl – Diagnostik und operative Therapie  
Dr. med. Jörn Dohle
- Fehlstellungen an den Kleinzehenstrahlen – Diagnostik und operative Therapie  
Dr. med. Dr. h.c. Michael Gabel
- Orthopädiesschuhtechnische Versorgung bei Zehenfehlstellungen  
Herbert Türk

09:15–10:15 COURSE

### CCO, Room 2 Current treatment approaches and therapy methods for spinal muscular atrophy (SMA)



Chair: Dr. Marco Götz, Andreas Ziegler

- Current therapy methods for SMA: Where do we stand?  
Dr. med. Andreas Ziegler
- (New) orthopaedic aspects of the SMA patient  
Dr. Marco Götz
- Physiotherapy and adapted concepts in current SMA treatment  
Dr. Andreas Hubert
- Adaptive orthotic systems for SMA  
Claudia Weichold

09:15–10:15 COURSE

### CCO, Room 3 Der Knickplattfuß in verschiedenen Altersstufen



Chair: Dr. Hartmut Stinus, Prof. Dr. med. Markus Walther

In Kooperation mit Gesellschaft für Fuß- und Sprunggelenkchirurgie e.V. (GFFC)

- Konservative und operative Therapie des Knick-Plattfußes im Kindes- und Jugendalter  
Dr. Hartmut Stinus
- Rekonstruktive Verfahren zur Knick-Plattfuß-Therapie beim flexiblen Knick-Plattfuß im Erwachsenenalter  
Prof. Dr. med. Markus Walther
- Versteifende Verfahren beim arthrotisch veränderten Knick-Plattfuß  
Prof. Dr. med. Frank Braatz
- Prä- und postoperative Maßnahmen in der Orthopädiesschuhtechnik zur Behandlung des Knick-Plattfußes  
Michael Möller

09:15–10:15 COURSE

### CCO, Room 5 Untersuchungstechniken bei neuroorthopädischen Krankheitsbildern im Kindesalter



Dr. med. Katharina Gather

## TIME TOPIC, SPEAKER

09:15–10:15 COURSE

### CCO, Room 4 Adaption and alignment in osseointegration – Challenges in orthopaedic technology



Chair: Michael Schäfer, Prof. Dr. rer. nat. habil. Siegmund Blumentritt

- Biomechanics of the treatment of the lower limb with transcutaneous osseointegrated prosthetic systems (TOPS)  
Prof. Dr. rer. nat. habil. Siegmund Blumentritt
- Prosthetics of the lower limb with osseointegration – Orthopaedic technology and fitting experience  
Oliver Breitenstein
- Prosthetics of the upper limb with osseointegration – Orthopaedic technology and fitting experience  
Erik Andres

09:15–10:15 SYMPOSIUM

### CCO, Room 1 Socket technology – New concepts for variable volume sockets



Chair: Markus Piro

- Klinische Aspekte bei Stumpfvolumenveränderungen  
PD Dr. med. habil. Lutz Brückner
- Variable volume sockets in transfemoral treatment  
Dipl.-OTM Robert Helbing
- Variable volume sockets in transtibial treatment  
Markus Piro

10:30–11:45 SPECIALIST WORKSHOP

### CCO, Room 2 Material 2025: Material science in orthopaedic technology – part 2



Chair: Michael Schäfer, Dipl.-Ing. Merkur Alimusaj

- Materials and their processing in additive manufacturing  
Prof. Dr.-Ing. Andreas Gebhardt
- Materials and their suitability for the production of devices using the SLS method  
Franziska Fuchs
- Look to the future – Innovative materials and their applications in orthopaedic technology  
Christian Kienzle

10:30–11:45 SATELLITE-SYMPOSIUM

### CCO, Room 5 Der kindliche Fuß zwischen konservativ und operativ



Chair: Dr. med. Jörn Dohle, Dr. Falk Thielemann

In Kooperation mit Deutsche Assoziation für Fuß und Sprunggelenk e.V. (D.A.F.)

- Komplexe therapierefraktäre Klumpfußversorgung aus operativer Sicht  
Dr. med. Melanie Horter
- Konservative und operative Therapie des Talus Verticales  
Dr. med. Eckehard Schumann
- Konservative und operative Therapie der tarsalen Coalitio  
Dr. Falk Thielemann
- Klumpfuß – Talus obliquus – tarsale Coalitio – welche Versorgungsmöglichkeiten gibt es aus orthopädie-technischer Sicht?  
Claudia Pohlig-Wetzelsperger

# CONGRESS PROGRAMME

FRIDAY, 13 MAY 2022

FRI

## TIME TOPIC, SPEAKER

10:30–11:45 SATELLITE-SYMPOSIUM

**CCO, Room 3** **Prevention with cerebral palsy – International Surveillance Programme (CPUP)**



Chair: Dr. med. Daniel Herz, Prof. Gunnar Hägglund

In cooperation with International Children's and Youngsters' Rehabilitation Network rehaKIND

- 25 years of CPUP – What we can learn from this?  
Prof. Gunnar Hägglund
- Update on "international hip consensus" for cerebral palsy  
Prof. Dr. med. Bettina Westhoff
- The evidence alert traffic light: Don't forget the back  
Dr. med. Daniel Herz

10:30–11:30 SYMPOSIUM

**CCO, Room 4** **Ankle injuries and sports – an international point of view**



Chair: Prof. Dr. med. Dipl. Oec. Bernhard Greitemann, Prof. Dr. med. Martin Engelhardt

- Orthopedic technology for athletes supports in foot and ankle field  
Yasuhito Tanaka
- Möglichkeiten und Grenzen der gelenkerhaltenden Chirurgie zum Erhalt der Sportfähigkeit  
Prof. Dr. med. Beat Hintermann

10:30–11:45 FREE PAPER

**CCO, Room 7** **Ausbildung: ein internationaler Ansatz**



Chair: Lars Grun, Prof. Dr. rer. nat. Matthias W. Hoppe

- Fachkräftemangel adé: Mit digitalem Arbeiten beim Nachwuchs punkten  
Peter Fröhlingdorf
- Neustrukturierung und Standardisierung der interdisziplinären Prothetik und Orthopädiotechnologie Lehre an einer technischen Fachhochschule in Wien  
Dr. Matthias Scherer
- EPSRC Centre for Doctoral Training in Prosthetics and Orthotics  
Prof. Christopher Nester
- Blended Distance Learning Education in Prosthetics and Orthotics  
Ivan Pintar Krajacic
- Internationale Masterstudiengänge: Was wird angeboten?  
Prof. Dr. med. Frank Braatz

10:30–11:30 FACTORY TALK

**CCO, Room 1** **We need to talk – about seating-shell fittings**



Klaus Wiese, Stefan Steinebach

12:00–12:30 KEYNOTE-VORTRAG

**CCO, Saal 1** **Intelligentes Steuern und Lernen in der Prothetik**



Prof. Dr.-Ing. Sami Haddadin

13:00–14:15 SATELLITE-SYMPOSIUM

**CCO, Room 1** **Sports and prosthetics**



Chair: Markus Rehm, Prof. Dr. med. Dipl. Oec. Bernhard Greitemann

In cooperation with Gesellschaft für Orthopädisch-Traumatologische Sportmedizin e.V. (GOTS)

- Prosthetic treatment  
Markus Rehm
- Rehab technology  
Manuel Onken

## TIME TOPIC, SPEAKER

- Support in para sports – winter  
Dr. Hartmut Stinus
- Legal right to a sports device for para athletes?  
Ralf Müller-Päucker
- Support in para sports – summer  
Prof. Dr. Anja Hirschmüller

13:00–14:15 SYMPOSIUM

**CCO, Room 5** **Gelenkverschleiß – Prävention und Behandlung**



Chair: Univ.-Prof. Dr. med. habil. Tobias Renkawitz, Dipl.-Ing. Merkur Alimusaj

- Moderne operative Verfahren am Hüftgelenk  
Univ.-Prof. Dr. med. habil. Tobias Renkawitz
- Moderne operative Verfahren am Kniegelenk  
Prof. Dr. med. Martin Engelhardt
- Aktuelle Versorgungs- und Behandlungsmethoden bei Sportverletzungen  
Prof. Dr. med. Holger Schmitt
- Biomechanische Aspekte bei Sportverletzungen  
Prof. Dr.-Ing. Sebastian Dendorfer
- Orthopädiotechnische Optionen in der Präventions- und Arthrotherapie  
Dipl.-Ing. Merkur Alimusaj

13:00–14:15 SYMPOSIUM

**CCO, Room 3** **The future of clinical practice and research in balance and postural control of people with a lower-limb amputation: The influence of intrinsic and extrinsic factors**



Chair: Dipl.-Ing. Daniel Heitzmann

- Results of the systematic review to summarise current evidence for factors influencing postural control in users of lower limb prostheses (including prosthesis-related extrinsic factors)  
Dipl. Ing. Daniel Heitzmann, David Rusaw, Cleveland Barnett
- Surgical / Neurological perspective  
Dr. Martin Berli
- Social / patient perspective  
Sarah Anderson
- Physical therapy perspective  
Lisan Scheepers
- Occupational therapy / ergonomics perspective  
Bill Miller

13:00–14:15 GLOBAL INTERDISCIPLINARY LEADERS

**CCO, Room 2** **Research and clinical practice in vacuum-assisted suspension techniques to improve patient outcomes**



Chair: Matthew J. Major

- Educational methods to support student and practitioner application of vacuum-assisted suspension  
Kristin Carnahan
- Prosthetic clinical implementation of active vacuum suspension to achieve better patient outcomes  
Ryan Caldwell
- Current research in vacuum-assisted suspension  
Matthew J. Major

# CONGRESS PROGRAMME

FRIDAY, 13 MAY 2022

FRI

## TIME TOPIC, SPEAKER

13:00–14:15 FREE PAPER

### CCO, Room 4 **Rehabilitation Technology**



Chair: Prof. Dr.-Ing. Marc Siebert, Dr. med. Tobias Merkle

- Initial clinical experience with an outpatient real-time biofeedback system in an orthosis for continuous monitoring of partial loading  
Dr. med. Tobias Merkle
- Electro-mobility in sports and rehabilitation – Power assisted hand bikes to increase mobility in persons with a physical disability  
Prof. Dr.-Ing. Marc Siebert
- Reducing skin temperature and humidity using a wheelchair cushion microclimate cover with active airflow  
Nienke Conijn
- Improving Quality of Life and living independence of a Quadruple amputee with a Microclimate backrest with active airflow installed on a wheelchair  
Nienke Conijn
- The coefficient of friction of wheelchair seats as a risk assessment for potential pressure ulcers  
Prof. Dr. Franz Konstantin Fuss

13:00–14:15 FREE PAPER

### CCO, Open **Forum** **Digitale Produktion vom Prozess zum Produkt**



Chair: Dipl.-Ing. Axel Sigmund, Dr. med. Urs Schneider

- Technische Integration digitaler Werkzeuge in den handwerklichen Herstellungsprozess  
Max Thalmeier
- Bedeutung der Datenerfassung für die digitale Prozesskette und die Herausforderungen der Datenerhebung in der OT und OST  
Henrike Reinecke
- Konstruktion orthopädischer Hilfsmittel  
Dipl. Ing Johannes Pröbsting
- Additive Fertigung in der Orthopädiertechnik: Vorteile, Herausforderungen und praktische Überlegungen  
Jiri Rosicky
- In Zeiten der MDR: Qualitätssicherung & Dokumentation dank simulationsgestützten Arbeiten  
Ylli Binakaj

14:30–15:45 SATELLITE-SYMPOSIUM

### CCO, Room 3 **Veteran rehabilitation and importance of sports**



Chair: Dr. med. Urs Schneider, Rory Cooper

In cooperation with AOPA – American Orthotic and Prosthetic Association

- Adaptive sports and recreations technologies and impact on people's lives  
Rory Cooper
- Leaving no man behind  
Jan van den Dool
- On Promoting Successful Integration of wounded, injured, ill service-members through adaptive reconditioning programs  
Dr. George Smolinski
- Beyond Rehabilitation – Sports as the key to a quality lifestyle  
Markus Rehm

## TIME TOPIC, SPEAKER

14:30–15:45 SYMPOSIUM

### CCO, Room 2 **Assessment in orthopaedic technology and orthopaedic shoe technology as an instrument of quality assurance**



Chair: Thomas Stief

- Measuring patient satisfaction: Result-oriented quality management system  
Hans Georg Ahrens
- Development of a structured treatment concept for the orthopedic practice  
Thomas Stief
- Pedography as a mechanism for testing and quality in orthopaedic shoe technology  
Tino Sprekelmeyer
- Assessment in the field of leg prosthetics  
Urban Daub
- Outcome measure assessment and quality management of treatment outcomes  
Robert Gailey
- AMP-Registry: A structured patient survey – Just paperwork and formalism or part of the treatment?  
Dipl.-Ing. Merkur Alimusaj

14:30–15:45 SYMPOSIUM

### CCO, Open **Forum** **Qualitätsstandard in der Fußversorgung**



Chair: Michael Möller, Dr. Hartmut Stinus

In Kooperation mit Deutsche Gesellschaft für interprofessionelle Hilfsmittelversorgung e.V. (DGHV)

- Formen der Fußlähmung und deren orthopädisch-technische Versorgungsmatrix  
Dr. med. Melanie Horter
- Fußsohlenschmerz und deren Versorgungsmatrix  
Michael Möller
- Pathologien beim Vorfußschmerz mit deren Versorgungsmatrix  
Prof. Dr. med. Sabine Ochman
- Fußgelenkschmerzen (USG/OSG) und deren Versorgungsmatrix  
Franz Fischer
- Orthopädisch-technische Versorgungsmatrix bei Sportlern  
Prof. Dr. med. Markus Walther

14:30–15:45 FREE PAPER

### CCO, Room 1 **Prosthetics: Foot components 1**




Chair: Dipl. Ing. (FH) Julia Block, Dipl.-Ing. Felix Starker

- Sound and amputated side knee pain and prosthetic function with a powered foot vs. passive prosthetic feet: A cross-sectional exploratory study  
Dr. med. Andreas Kannenberg
- Trunk biomechanics of transtibial amputees in level and sloped gait using rigid, hydraulic and microprocessor controlled ankles  
Thede Preiser
- Heel-region properties of prosthetic feet: a comprehensive insight  
Dipl.-Ing. Felix Starker
- Even slight deviations of the heel height when fitting a prosthetic foot have a significant impact on the biomechanics of walking  
Dipl. Ing. Daniel Heitzmann
- Quantifying Performance of a Prosthetic Foot with Frontal Plane Adaptability Using Standardized Mechanical Tests  
Matthew Wernke

# CONGRESS PROGRAMME

FRIDAY, 13 MAY 2022

FRI

TIME	TOPIC, SPEAKER
14:30–15:45	FREE PAPER
CCO, Room 4	<b>Open topics</b> Chair: Prof. Dr.-Ing. David Hochmann, Dr. Jennifer Ernst
	<ul style="list-style-type: none"><li>• Methodical development of orthosis-designs suitable for 3D printing Prof. Dr.-Ing. David Hochmann</li><li>• Treatment of patients using service fabrication and the associated knowledge transfer beyond the workshop Fabian Roth</li><li>• Current state of regulatory requirements for 3D-printed customised devices in Europe Ann-Kathrin Carl</li><li>• What effect do reimbursement systems in the device sector have compared with the usual DRG flat rates in hospitals? Daniel Behm</li><li>• Optimising the effectiveness of KAFOs: What is the effect of the ankle joint principle? Dr. Thomas Schmalz</li><li>• Evidence-based practice in prosthetics and orthotics in the United States: Burden or Opportunity? Andreas Kannenberg</li></ul>