

VELAMED USER GROUP MEETING

Date: 26/09/2025

Beginning: 09:00 am

Location: German Sport University Cologne



START	END	CONTENT	SPEAKER
09:00	09:30	Get Together Registration	
09:30	09:45	Welcome	Velamed
09:45	10:15	Keynote 1 In the flow of forces: Biomechanics meets comfort in cycling	Prof. Dr. Wolfgang Potthast (German Sport University Cologne)
10:15	10:45	Keynote 2 The Sports Medicine Sport Science Interface: Development of a unified framework, with examples from GB Olympic Gymnastics and World Rugby Research and Innovation Hub.	Prof. Gareth Irwin (Cardiff Metropolitan University)
10:45	11:15	Coffee Break	
11:15	11:30	User Story Influence of body position on the Humac Norm dynamometer on shoulder muscle activation	Dr. sc. med. Eleonora Croci (Postdoctoral Researcher) (University of Basel)
11:30	12:30	Workshop-Session 1	
12:30	13:15	Lunch Break	
13:15	13:35	What's new at Qualisys	Vincent Fohanno (Qualisys)



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German Sport University Cologne



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START	END	CONTENT	SPEAKER
13:35	14:05	Keynote 3 Secondary injury prevention of knee joint injuries in elite team sport	Priv.-Doz. Dr. med. Leonard Achenbach (DFB, FC Bayern München)
14:05	14:20	Userstory Insights into pre season testing at Bayer Leverkusen	Carsten Rademacher (Bayer 04 Leverkusen)
14:20	14:50	Coffee Break	
14:50	15:05	User Story Analyse ergonomischer Arbeitsplätze in der Lagerlogistik mittels EMG und IMU - Vorstellung einer klinischen Studie	Inken Storck & Lea Ellberg (University of Applied Sciences, Osnabrück)
15:05	15:20	User Story Motion analysis in figure skating	Jenny Steinke, Paolo Bacchini & Pietro Faleschini (BMETHOD)
15:20	16:20	Workshop-Session 2	
16:20	16:30	Summary Day 1	Velamed
16:30	17:15	Campus Tour	
19:00	open end	Evening Event (ANNO 1858)	



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START	END	CONTENT	SPEAKER
07:15		Social Run	Katrin Wöhlken (Velamed)
09:00	09:30	Get Together Welcome	
09:30	10:00	Keynote 4 Return to... should we carry on testing?	Dr. rer. medic. Arthur Praetorius (BG Klinik Duisburg)
10:00	10:30	Keynote 5 RTS revisited: bring the lab to the players	Dr. Alli Gokeler (University of Paderborn)
10:30	10:45	Coffee break	
10:45	11:05	User Story A five-year experience report on clinical movement analysis of the upper extremity	Dr. Ursula Trinler (BG Klinik Ludwigshafen)
11:05	11:20	User Story Evidence based treatment of chronic neck pain using s-emg	Dr. Jan Schilling
11:20	12:20	Workshop-Session 3	
12:20	13:20	Lunch Break	



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Sporthochschule Köln
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VELAMED USER GROUP MEETING

Date: 27/09/2029



START	END	CONTENT	SPEAKER
13:20	13:40	What's new at Noraxon	Clement Leung (Noraxon)
13:40	13:55	Keynote 6 Translating Motion into Meaning: Moving Beyond Angles with IMUs	Dr. John Cockcroft (Senior Biomechanical Engineer (PhD), Noraxon)
13:55	14:25	Keynote 7 How technologically advanced running shoes influence energetic cost and muscle activation in recreational runners? Are EMG measures applicable (sensitive??) to estimate running economy?	Prof. Dr. Gert-Peter Brüggemann (Founder True Motion Running)
14:35	14:50	Coffee Break	
14:50	15:05	User Story Influence of calibration pose on IMU-based gait kinematics in normal walking and induced crouch gait	Dr. sc. ETH Barbara Postolka (Postdoctoral Researcher) (University Basel)
15:05	15:30	Keynote 8 Neuromuscular adaptations using virtual reality in motion analysis	Dr. Markus Wenning (Orthoteam Freiburg)
15:30	16:35	Summary End of event	Velamed



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VELAMED USER GROUP MEETING

WORKSHOPS DAY1

Date: 26/09/2025

Time: 11:30 -12:30 o'clock

WORKSHOP SESSION 1	ROOM SPEAKER
From Lab to Ring: Quantifying punch force and head impact loads in Boxing	Biomechanics laboratory Carola Birk & Dr. Igor Komnik
Markerless running analyses on a Gaitway3D instrumented treadmill	Treadmill room Paul Gette
Return-to-Sport-Screenings with MR4 – practical and guideline-based	Lecture hall James Döring & Vincent Krüger
Change of directions – from standardized to unanticipated using the SpeedCourt	NawiMedi Frank Eppelmann & Kevin Backes

Datum: 26/09/2025

Time: 15:20 - 16:20 o'clock

WORKSHOP SESSION 2	ROOM/SPEAKER
Track What Matters – Goal-Oriented Functional Testing and Interpretation in Clinical Practice	Biomechanics laboratory Julia Scharbert & Michael Böhmer
Chris Powers Running Assessment Tool	Treadmill room Miriam ter Haar & Verena Bruck
Motion analysis in baseball - from physical screening to 3D motion capture	Lecture hall Dirk Mund
CDP	Lobby Benedikt Jocham



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German Sport University Cologne



VELAMED USER GROUP MEETING

WORKSHOPS DAY 2

Date: 27/09/2025

Time: 11:45 - 12:45 o'clock

WORKSHOP SESSION 3	ROOM
Return to Sport, Focus: Change of Direction Mechanics	Biomechanics laboratory Dr. Arthur Praetorius & Frederik Held
Motion testing essentials for clinical assessments - single IMU sensor rapid screenings	Lobby Dr. Clint Hansen
Bicycle analysis in the Noraxon Eco-System	Lecture hall Arne Eschenbruch
From Research to Practice: Applied Use of EMG and IMU in Running Diagnostics	Treadmill room Tanja Esser



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VELAMED USER GROUP MEETING

Date: 26 & 27/09/2025

Location: German Sport University Cologne



WORKSHOP	SPEAKER
<p>Track What Matters – Goal-Oriented Functional Testing and Interpretation in Clinical Practice</p> <p>This workshop provides a practical introduction to functional movement assessments using 3D motion capture technology (Qualisys). Participants will gain insight into how specific test selections are made based on clinical goals, and how movement data of specific tests is interpreted within our online reporting system. Through live demonstrations and discussion of real-world examples, we will explore how objective kinematic data can support clinical reasoning and guide individualized rehabilitation and return-to-sport decisions.</p>	<p>Julia Scharbert & Michael Böhmer</p>
<p>From Research to Practice: Applied Use of EMG and IMU in Running Diagnostics</p>	<p>Tanja Esser</p>
<p>Motion analysis in baseball - from physical screening to 3D motion capture</p>	<p>Dirk Mund</p>
<p>Return to Sport, Focus: Change of Direction Mechanics</p>	<p>Dr. Arthur Praetorius, Dr. Ursula Trinler, Prof. Dr. Felix Stief & Frederik Held</p>
<p>Markerless running analyses on a Gaitway3D instrumented treadmill</p>	<p>Paul Gette</p>
<p>Motion testing essentials for clinical assessments - single IMU sensor rapid screenings</p>	<p>Dr. Clint Hansen</p>
<p>Change of directions – from standardized to unanticipated using the SpeedCourt</p> <p>Change of directions are common in Return to... diagnostics and training. But how to perform them either in a controlled way or randomize them? How to add dual tasking? And how to analyze them? We deliver the answers in this hands-on workshop.</p>	<p>Frank Eppelmann & Kevin Backes</p>



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WORKSHOP	SPEAKER
<p>Return-to-Sport-Screenings with MR4 – practical and guideline-based Discover innovative approaches to functional movement analysis! In this workshop, we introduce specially developed applications in the Myoresearch 4 (MR4) software! Created according to established Return-to-Sport protocols. Experience firsthand how efficient and clinically relevant screenings can be achieved even with a small setup, including:</p> <ul style="list-style-type: none">• CMAS Screening (Cutting Movement Assessment Score)• LESS Scoring (Landing Error Scoring System)• ASH Test (Athletic Shoulder Test)• ...and many other tests that can be seamlessly integrated into sports science and therapeutic practice.	<p>James Döring & Vincent Krüger</p>
<p>Chris Powers Running Assessment Tool This workshop provides an introduction to the Powers Running module, developed by Noraxon in collaboration with Dr Chris Powers. Participants will gain an understanding of the module's theoretical principles and practical applications, including both markerless 2D video tracking and the newer version with IMU sensors.</p>	<p>Miriam ter Haar & Verena Bruck</p>
<p>Bicycle analysis in the Noraxon Eco-System: We record EMG and IMU data on flat terrain and at a 15% incline on a turbo trainer. How are the measured data evaluated and made comparable? Using this example, we explain how the phase definition of a cyclic movement is automated in MR4, enabling an average analysis in the report</p>	<p>Arne Eschenbruch</p>



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