

8th Conference of the International Sports Engineering Association - Vienna 2010 - 12th to 16th July						
Thursday 15th						
from	to	Keynote Lecture (hall GH) - Mario LaFortune - Importance of using appropriate independent variables and representative subjects for research - Keynote Chair: Alan Bramley, Anton Sabo				
		hall GH	hall I	hall K		
		topic	topic	topic		
09:45	10:00	DEVELOPMENT OF AN INSTRUMENTED ANTHROPOMORPHIC DUMMY FOR THE STUDY OF IMPACTS AND FALLS IN SKIING (Mr. Nicola Petrone)	DYNAMIC MODELING OF A SPRINGBOARD DURING A 3M DIVE (Mr. Jose Gomez)	OPTIMISATION OF A BICYCLE CHAINRING TO AID IN REHABILITATION OF ATHLETES SUFFERING FROM PATELLOFEMORAL PAIN SYNDROME (PFPS) (Mr. Christopher Phillips)		
10:00	10:15	SKIBASERL - KNOWLEDGE MANAGEMENT IN HIGH PERFORMANCE SPORTS (Mr. Eckehard Fozy Moritz)	Development of Widely Useable Simulator for Optimization of Walking Form in Water (Mrs. Keiko Akiyama)	ADJUSTABLE HANDBIKE-CHASSIS FOR OFFROAD-USE (MOUNTAIN HANDBIKE) (Mr. Marc Siebert)		
10:15	10:30	APPLICATION-SPECIFIC DESIGN OF SPORTS EQUIPMENT FROM ANISOTROPIC FIBER-REINFORCED PLASTICS WITH STIFFNESS RELATED COUPLING EFFECT (Mr. Joerg Kaufmann)	REAL TIME SIMULATION OF TACKLING YACHTS: HOW BEST TO COUNTER THE ADVANTAGE OF AN UPWIND YACHT (Mr. Thomas Spenkuch)	DESIGN, FABRICATION, AND PRELIMINARY RESULTS OF A NOVEL BELOW-KNEE PROSTHESIS FOR SNOWBOARDING: A CASE STUDY (Mr. Alexander L.M. Minnove)		
10:30	10:45	ANALYSIS OF THE STRUCTURAL BEHAVIOR OF AN INNOVATIVE REINFORCED SKI BOOT (Mr. Nicola Petrone)	FE-Analysis and lay-up strategies for a kiteboard (Mr. Jan Stefan)	The 'Adapted Skibob' - Wintersport for People with Special Needs & Disabilities of the Musculoskeletal System (Mr. Thorsten Gegenwarth)		
10:45	11:30	Morning Tea				
		hall GH	hall I	hall K		
		topic	topic	topic		
11:30	11:45	SIMULATION OF RUNNING IMPACT USING A VISCOELASTIC MODEL CONSIDERING CONTACT PHASE (Mr. Yoshihisa Sakurai)	Mathematical model of track cycling: the individual pursuit (Mrs. Lindsey Underwood)	BIOIMPEDANCE DATA MONITORING IN PHYSICAL AND MEDICAL PREPARATION: A REAL INTEREST FOR PERFORMANCE OF INTERNATIONAL SKIERS AT 2010 WINTER OLYMPIC GAMES (Mr. Julien Rebevol)		
11:45	12:00	UNDERSTANDING THE MECHANICS OF DYNAMIC ROPE BRAKES (Mr. Franz Konstantin Fuss)	PREDICTION OF ENERGY EFFICIENT PEDAL FORCES IN CYCLING USING MUSCULOSKELETAL SIMULATION MODELS (Mr. Franz Hochle)	Active vibration damping of the alpine ski (Mr. Lutz Rothemann)		
12:00	12:15	A MATHEMATICAL MODEL OF THE BOOMERANG (Mr. Alexander Kuleshov)	A MATHEMATICAL SOLUTION OF THE OPTIMUM TAKEOFF ANGLE IN LONG JUMP (Mr. Kazuhiro Tsuboi)	PHYSIOLOGICAL MONITORING SYSTEM FOR HIGH ALTITUDE SPORTS (Mr. Andrea Ridolfi)		
12:15	12:30	MOTION ANALYSIS OF PERFORMANCE TESTS USING A PULLING FORCE DEVICE (PPD) SIMULATING A JUDO THROW (Mrs. Michaela Hassmann)	ANALYSIS OF HAMMER MOVEMENT BASED ON PARAMETRICALLY EXCITED PENDULUM MODEL (Mr. Ken Ohta)	VERIFICATION OF THE EFFECTIVENESS OF THE INTEGRATED PRODUCT DEVELOPMENT PARADIGM FOR THE DEVELOPMENT OF SPORTS EQUIPMENT - A CASE STUDY (Mr. Andreas Krüger)		
12:30	12:45	VARIOUS SCHEMES OF THE SKATEBOARD CONTROL (Mr. Alexander Kuleshov)	UNDERSTANDING THE INFLUENCE OF POPULATION SIZE ON ATHLETIC PERFORMANCE (Mr. Leon Foster)	FULL SCALE IMPACT TESTING OF SKI SAFETY BARRIERS USING AN INSTRUMENTED ANTHROPOMORPHIC DUMMY (Mr. Nicola Petrone)		
12:45	13:00	APPLYING FINITE ELEMENT ANALYSIS TO COMPRESSION GARMENT DEVELOPMENT (Mr. James Tarrier)	OPTIMIZATION OF POLE CHARACTERISTIC IN POLE VAULTING USING THREE-DIMENSIONAL VAULTER MODEL (Mr. Shigemichi Ohshima)	EXPERIMENTAL INSTALLATION FOR EVALUATION OF SNOWBOARD SIMULATED ON-SNOW PERFORMANCE (Mr. Patrick Clifton)		
13:00	14:00	Lunch				
		hall GH	hall I	hall K		
		topic	topic	topic		
14:00	14:15	IN SITU DRAG MEASUREMENTS OF SPORTS BALLS (Mr. Jeff Kensrud)	SMART PHONE APPLICATION FOR REAL-TIME OPTIMIZATION OF ROVER MOVEMENTS (Mr. Christian Hager)	WIRELESS TRACKING SYSTEM FOR SPORTS TRAINING INDOORS AND OUTDOORS (Mr. Mark Hedley)		
14:15	14:30	Aerodynamic Characteristics and Flow Pattern of a Golf Ball with Rotation (Mr. Katsumi Aoki)	DEVELOPMENT OF A SWIMMING MOTION DISPLAY SYSTEM FOR ATHLETE SWIMMERS' TRAINING USING A WRISTWATCH-STYLE ACCELERATION AND GYROSCOPIC SENSOR DEVICE (Mr. Motomu Nakashima)	IDENTIFICATION OF BASKETBALL PARAMETERS FOR A SIMULATION MODEL (Mr. Hiroki Okubo)		
14:30	14:45	AERODYNAMICS OF A NEW VOLLEYBALL (Mr. Takeshi Asa)	VIBRATION ANALYSIS OF SINGLE SCULL OARS (Mr. Felix Breitschädel)	Analysis of Torques and Forces Applied on Limbs and Joints of Lower Extremities in Free Kick in Football (Mr. Sevedkamataddin Rezvaninejad)		
14:45	15:00	Measurements of Aerodynamic Properties of Shuttlecocks (Mr. Firoz Alam)	MUSCLE ACTIVITY DURING FIN SWIMMING (Mrs. Marion Koch)	CALCULATION OF ANKLE AND KNEE JOINT MOMENTS DURING ACL INJURY SITUATIONS IN SOCCER (Mr. Thomas Grundt)		
15:00	15:15	MULTI-OBJECTIVE EXPLORATION OF THE LAUNCH CONDITION FOR A FLUCTUATING PUNTED KICK IN RUGBY ON THE BASIS OF PSP MEASUREMENT (Mr. Kazuya Seo)	Mobile sensor communications in aquatic environments for sporting applications (Mr. Daniel James)	USE OF HEADGEAR IN FOOTBALL - A COMPUTER SIMULATION OF THE HUMAN HEAD AND NECK (Mr. Stefan Lehner)		
15:15	15:45	Poster Session #3: Accuracy and reliability of the Memsens system to evaluate a squat jump ; Influence of the length of the bow's handle on a national level archer's skill ; Training feedback system using athletes' heart rate variability ; The Use Of SHIMMERTM To Detect Stride Time In Running Gait ; Sampling rate influence on vertical jump height in force plate analysis ; Banjy: fun to move and play for kids around 12 years of age ; Upper limb functional evaluation on baseball pitchers through a portable 3D tracking system based on inertial sensors ; Sensitivity analysis of a Hybrid III head- and neckform to impact angle variations ; Inertial sensors in sports: application to vertical jumps ; Finite element analysis of the effect of loading curve shape on brain injury predictors ; An architecture for iPod/iPhone applications in field sports				
15:45	16:30	Afternoon Tea				
		hall GH	hall I	hall K		
		topic	topic	topic		
16:30	16:45	AN EXPERIMENTAL VALIDATION METHOD OF WIND TUNNEL MEASUREMENTS ON FIFA APPROVED FOOTBALLS USING KICKING TESTS IN WIND-FREE CONDITIONS (Mr. David Rogers)	Fine classification of complex motion recognition in fencing (Mrs. Giulia Mantovani)	CROSS COUNTRY SKI BASE TUNING WITH STRUCTURE IMPRINT TOOLS (Mr. Felix Breitschädel)		
16:45	17:00	GENERATING FOOTBALL CD PROFILES WITHOUT A WIND TUNNEL (Mr. Simon Choppin)	Measurement of kinematics of the flying disc using an accelerometer (Mr. Reno Kovanagi)	FUNCTIONALITY OF BACK PROTECTORS IN SNOW SPORTS CONCERNING SAFETY REQUIREMENTS (Mr. Kai-Uwe Schmitt)		
17:00	17:15	SIMULATION OF SPINNING SOCCER BALL TRAJECTORIES INFLUENCED BY ALTITUDE (Mr. Stefan Härzer)	THE ETHICS OF USING ENGINEERING TO ENHANCE ATHLETIC PERFORMANCE (Mr. David James)	EFFECTS OF TEMPERATURE CHANGE ON CROSS COUNTRY SKI CHARACTERISTICS (Mr. Felix Breitschädel)		