FULL PROGRAMME

27.06.2011 09:00
Secretariat Opening; Access to Exhibition

27.06.2011 14:30
Bus Shuttle from Hotels

27.06.2011 15:30
Room 1

DELSYS®

Workshop: BEST PRACTICES FOR RECORDING THE SEMG SIGNAL
Chairperson: Carlo de Luca

27.06.2011 17:00
Auditorium
Opening Ceremony
Portuguese Guitar Performance (Porto Music School)

27.06.2011 18:00
Auditorium
Opening Conference 1
The Geoffrey Dyson Lecture:
Youlian Hong
TAI CHI: MOVEMENT CHARACTERISTICS AND PREVENTION OF FALLS
Chairperson: Manfred Vieten

27.06.2011 19:00
Exhibition Hall
Technical Exhibition Opening & Port of Honour
Hip Hop Performance “Next Level”

27.06.2011 20:00
Bus Shuttle to Hotels
28.06.2011 08:30
Bus Shuttle from Hotels

28.06.2011 09:00
Auditorium
Conference 2
G.-P. Brueggemann
BIOLOGICAL TISSUE RESPONSE TO MECHANICAL LOADING IN IMPACT SPORTS
Chairperson: J. Paulo Vilas-Boas

28.06.2011 10:00
Auditorium
Oral Session 1 (Biomechanics of Individual Sports - Swimming)
Chairperson: Raúl Arellano

ID403
COMPARING COMPUTATIONAL FLUID DYNAMICS AND INVERSE DYNAMICS
METHODOLOGIES TO ASSESS PASSIVE DRAG DURING SWIMMING GLIDING
Lígia Costa, João Ribeiro, Daniel Marinho, Vishveswar Mantha, João Paulo Vilas-Boas,
Ricardo J. Fernandes, António Silva, Abel Rouboa, Leandro Machado

ID184
THE EFFECT OF WEARING A CAP ON THE SWIMMER PASSIVE DRAG
Daniel A. Marinho, Vishveshwar R. Mantha, Abel I. Rouboa, João P. Vilas-Boas, Leandro
Machado, Tiago M. Barbosa, António J. Silva

ID401
LOWER LIMBS JOINTS MOTION DURING SUBMAXIMAL 100-M BUTTERFLY
Kelly de Jesus, Karla de Jesus, Pedro Figueiredo, Pedro Gonçalves, João Paulo Vilas-Boas,
Ricardo J. Fernandes

ID512 (NIA)
TETHERED SWIMMING AS AN USEFUL TOOL TO MEASURE UNBALANCE BETWEEN ARMS AND
FORCE PRODUCTION DECREASE
Pedro G. Morouço, Daniel A. Marinho, Ricardo J. Fernandes, Mário C. Marques

ID581 (NIA)
BIOMECHANICAL ANALYSIS OF STARTING PREFERENCE FOR EXPERT SWIMMERS
Julien Vantorre, Ludovic Seifert, J. Paulo Vilas-Boas, Ricardo Fernandes, Benoit Bideau,
Guillaume Nicolas, Didier Chollet

ID407
ARE LAND TESTS A GOOD PREDICTOR OF SWIM START PERFORMANCE?
Jodi Cossor, Sian Slawson, Barry Shillabeer, Paul Conway, Andrew West
**28.06.2011 10:00**
**Room 1**
**Oral Session 2 (Miscellaneous)**
**Chairperson:** Hans-Joachim Menzel

**ID383**
KINETIC ANALYSIS OF TOE-ON TKACHEV ON UNEVEN BARS
David G. Kerwin, Gareth Irwin

**ID521**
EFFECT OF HAND PLACEMENT POSITION ON PRESS-TO-HANDSTAND TECHNIQUES AND STABILITY
Pui Wah Kong, Sin Yung Leung, Yoon Soo Han

**ID534**
VERTICAL IMPACT FORCE AND LOADING RATE ON THE GYMNASTICS TABLE VAULT
Gabriella Penitente, William A. Sands, Jeni R. McNeal

**ID425 (NIA)**
COMPARISON OF LUGERS’ START ELEMENTS ON A SLIDING TRACK AND AN ICED START RAMP
Veronika Fedotova, Viktor Pilipiv

**ID529**
COMPARISON BETWEEN PLYOMETRIC AND ISOKINETIC TRAINING DURING THREE WEEKS ON ISOKINETIC STRENGTH IN SPORT SCIENCES STUDENTS
Isabel Parrilla, Asunción Martínez-Valencia, José María González-Ravé

**ID485**
ASSESSMENT OF DIFFERENT POWER PARAMETERS ON SQUAT AND LEG PRESS: CONSIDERATIONS FOR POWER DEVELOPMENT
Juvenal Fernandes, Henrique Coimbra, João Carvalho, Luis Sánchez-Medina, Filipe Conceição

---

**28.06.2011 10:00**
**Room 9**
**Applied Session:** BIOMECHANICAL MODELLING
**Chairperson:** António Veloso

THE EVOLUTION OF POSE ESTIMATION ALGORITHMS FOR 3D MOTION CAPTURE DATA: COPING WITH UNCERTAINTY
W. Scott Selbie

AN INVERSE METHOD FOR PREDICTING THE MECHANICS OF HOPPING FROM MOTION DATA INPUT
Wangdo Kim & António Veloso
APPLICATION OF INDUCED ACCELERATION ANALYSIS AND COMPUTER SIMULATION IN SPORTS
Thomas Kepple

CAN FORWARD DYNAMIC SIMULATION MODELS BE USED TO IMPROVE THE PERFORMANCE OF TOP ATHLETES?
Maarten F. Bobbert & L.J. Richard Casius

MUSCLE SERIES ELASTICITY: THEORETICAL AND EXPERIMENTAL CONSIDERATIONS
Walter Herzog

28.06.2011 11:30
Exhibition Hall
Coffee-break
28.06.2011 12:00
Exhibition Hall
Poster Sessions 1 to 4

Poster Session 1 (Electromyography applied to Sports Biomechanics)

P1.1 - ID 548
CRICKET SIDE STRAIN INJURIES: A DESCRIPTION OF TRUNK MUSCLE ACTIVITY AND THE POTENTIAL INFLUENCE OF BOWLING TECHNIQUE
Kathleen Shorter, Andrew Nealon, Neal Smith, Mike Lauder

P1.2 - ID481
ONSET AND OFFSET OF RECTUS FEMORIS ACTIVATION DURING DOUBLE POLING ERGOMETRY IN TWO POSITIONS: STANDING VS. SITTING
Sarah K. Leissring, Randall L. Jensen, Jodi L. Tervo, Phillip B. Watts

P1.3 - ID558
INVESTIGATION OF ELECTROMYOGRAPHY OF MAJOR MUSCLE GROUPS WHILE HIKING OUT DURING SAILING ON BOTH LAND AND WATER
Chun Chuan Ritchie Tan, Jun Yong Toh, Kin Liao, Wei Xie

P1.4 - ID576
A STUDY OF MUSCLE FATIGUE FOR PROLONGED STANDING USING SURFACE ELECTROMYOGRAM: A CASE STUDY
S.J Janice Tan, Davy Lim, Wei Xie, Kin Liao

P1.5 - ID494
LOWER TRUNK MUSCLE ACTIVITY DURING FRONT CRAWL SWIMMING IN A SINGLE LEG AMPUTEE
Jonas Martens, Ingi Þór Einarsson, Naama Schnizer, Filip Staes, Daniel Daly
P1.6 - ID511
INFLUENCE OF AN EXERCISE PROGRAM IN THE PERONEAL REACTION TIME
Carlos Moreira, Paulo Carvalho, Camilo Moreira

P1.7 - ID 525
EMG OF THE TRANSVERSE ABDOMINUS AND MULTIFIDUS DURING PILATES EXERCISES
Paulo de Carvalho, Ana Pereira, Rubim Santos, João Paulo Vilas Boas

P1.8 - ID 435
MUSCULAR FATIGUE DURING 200 M FRONT CRAWL
Pedro Figueiredo, Suzana Pereira, Pedro Gonçalves, João Paulo Vilas-Boas, Ricardo J Fernandes

P1.9 - ID 550
MUSCLE ACTIVITY OF THE STANCE KNEE IN ELITE RACE WALKERS
Brian Hanley, Athanassios Bissas, Andi Drake

P1.10 - ID555
KINEMATIC AND ELECTROMYOGRAPHIC ANALYSIS OF UPPER EXTREMITY IN ARM WRESTLING
Meng-Kai Hong, Chih-Yu Lin, Yen-Sung Liao, Chih-Kai Hong, Lin-Hwa Wang

Poster Session 2 (Biomechanics of Gait and Running)

P2.1 - ID 432
COMPARISON OF GROUND REACTION FORCES BETWEEN IN-PLACE AND FORWARD WATER RUNNING AT TWO LEVELS OF IMMERSION
Heiliane B Fontana, Alessandro Haupenthal, Caroline Ruschel, André L A Pizzolatti, Paulo R Cerutti, Helio Roesler

P2.2 - ID 497
THE INFLUENCE OF BACKPACK CARRIAGE ON TRUNK POSTURE IN CHILDREN DURING UNPLANNED GAIT TERMINATION
Shi Wei Mo, Dong Qing Xu, Jia Song, Song Tao Hong, Jing Xian Li

P2.3 - ID 473
RUNNING ECONOMY AND GASTROCNEMIUS MUSCLE LENGTH DURING RUNNING FOR KENYAN AND JAPANESE ELITE DISTANCE RUNNERS
Yasushi Enomoto, Yuta Suzuki, Toshiharu Yokozawa, Hidetaka Okada

P2.4 - ID 398
THE INFLUENCE OF HIGH-INTENSITY RUN DURATION ON TIBIAL ACCELERATION AND SHOCK ATTENUATION
Adam Clansey, Michael Hanlon
P2.5 - ID 579
A STUDY OF MOMENTS ACTING ON THE TIBIA DURING GAIT IN THE ACTIVE ELDERLY POPULATION
Mihai Voinescu, Denise Soares, Marcelo Castro, Emília Mendes, Arjana Davideșcu, Leandro Machado

P2.6 - ID 563
IS AVERAGE SPEED CONTROL SENSITIVE ENOUGH TO ENSURE NON-ACCELERATED RUNNING IN THE ANALYSIS OF RUNNING MECHANICS?
Steffen Willwacher, Katina Fischer, Gert – Peter Brüggemann

P2.7 - ID 578
GROUND REACTION FORCES OF NATIONAL LEVEL RACE WALKERS
Brian Hanley, Andi Drake, Athanassios Bissas

P2.8 - ID 561
JOINT MOMENTS OF THE LOWER EXTREMITIES OF CHIRUNNING TECHNIQUE IN CHIRUNNERS: A PILOT STUDY
Adam Teav, Jing Xian Li

Poster Session 3 (Biomechanics of Team Sports)

P3.1 - ID 509
LINEAR AND ANGULAR CONTRIBUTIONS TO BALL VELOCITY IN THE DELIVERY MOTION AMONG VARIOUS LEVELS OF BASEBALL INFIELDER
Tomohisa Miyanishi, Naoki Saku

P3.2 - ID 451
FORCE GENERATION IN MALE BASKETBALL PLAYERS
Carmen Ferragut, Nuria Rodriguez, Helena Vila

P3.3 - ID 444
COMPARISON OF THE HAND-DRIBBLING MOTION BETWEEN SKILLED AND UNSKILLED SUBJECTS
Kai Hirata, Masatoshi Sawamura, Michiyoshi Ae, Yasuto Kobayashi

P3.4 - ID 489
GENDER DIFFERENCES ON LOWER LIMB COORDINATION DURING ELITE PLAYERS JUMP
MA Castro, MA Janeira, Rui Mendes, Orlando Fernandes, Nuno Ferreira

P3.5 - ID 513
QUANTITATIVE ANALYSIS OF FUTSAL PLAYERS’ ORGANIZATION ON THE COURT
Felipe Arruda Moura, Juliana Exel Santana, Ana Lorena Marche, Tiago Henrique Aguiar, Ana Carolina M. A. Rodrigues, Ricardo Machado Leite de Barros, Sergio Augusto Cunha
BIOMECHANICS OF THE PENALTY STROKE IN ROLLER HOCKEY
Mário A P Vaz, Nuno Ramos, João Abrantes, F Queirós de Melo, Filipe Conceição

THE RELATIONSHIP BETWEEN MAXIMAL STRENGTH AND PLYOMETRIC ABILITY IN RUGBY PLAYERS
Charlotte Dymond, Eamonn P. Flanagan, Anthony P. Turner

RELIABILITY OF JUMP AND PERFORMANCE MEASURES IN RUGBY UNION PLAYERS
Randall L. Jensen, Laura-Anne M. Furlong, Darragh Graham, Andrew J. Harrison

THE EFFECT OF A GAME-SPECIFIC SHORT TERM FATIGUE PROTOCOL ON KICKING IN AUSTRALIAN FOOTBALL
Evan Coventry, Kevin Ball, Lucy Parrington, Simon Taylor, Robert Aughey, Michael McKenna

BILATERAL STRENGTH TESTING IN DOMINANT AND NON-DOMINANT PLANT LEG IN SOCCER PLAYERS
Barbara L. Warren, Melissa Abellanida

EFFECTS OF EIGHT-WEEK WHOLE-BODY VIBRATION TRAINING ON POSTURAL STABILITY IN ELDERLY ADULTS
Wei-Hsiu Lin, Jun-Dar Lin, Yen-Ting Wang, Alex J. Y. Lee

ACUTE EFFECT OF VIBRATORY STIMULATION ON ELBOW JOINT FLEXOR PERFORMANCE
Jui-hung Tu, Chia-hsiang Chen, Yung-hsing Chiu

ENHANCED BALANCE AND BONE MINERAL DENSITY ASSOCIATED WITH DIFFERENT EXERCISE TRAINING PROGRAMS IN OLDER WOMEN
Elisa A Marques, Flávia Wanderley, Leandro Machado, Filipa Sousa, Pedro Moreira, Jorge Mota, Joana Carvalho

LONG JUMP KINEMATICS OF WORD CLASS ATHLETES WITH AN INTELLECTUAL DISABILITY
Wolfgang Potthast, Steffen Willwacher, Ralf Müller, Gert-Peter Brüggemann
P4.5 - ID 551
STRIDE REGULATION AT THE APPROACH PHASE OF LONG JUMP IN VISUALLY IMPAIRED (F13) ATHLETES
Apostolos Theodorou, Skordilis Emmanouil, Evagelos Tasoulas, Flora Panteli, Athanasia Smirniotou, Paradisis Georgios

P4.6 - ID 440 (NIA)
THE DIFFERENCES BETWEEN DOUBLE AND SINGLE LEG TAKEOFF ON JOINT KINETICS DURING REBOUND-TYPE JUMP
Yasushi Kariyama, Kenichi Mori, Mitsugi Ogata

P4.7 - ID 575
DOES SYMMETRY OF LOWER LIMB KINETICS EXIST IN SITTING AND STANDING TASKS?
Daniel Varin, Mario Lamontagne, Paul E. Beaulé

P4.8 - ID 441
EFFECT OF CATHODAL TRANSCRANIAL DIRECT CURRENT STIMULATION ON LOWER LIMBS MUSCULAR FATIGUE DURING ISOKINETIC PROTOCOL
Ricardo Braga, Jonas Gurgel, Raphaela Alvarenga, Flávia Porto, Rafael Montenegro, Gabriel Espinosa, Alex Itaborahy, Paulo Farinatti

P4.9 - ID 487
EFFECT OF CATHODAL TRANSCRANIAL DIRECT CURRENT STIMULATION OVER AN ANTAGONISTIC CO-ACTIVATION DURING AN ISOKINETIC PROTOCOL
Marcus Paulo de Andrade, Jonas Gurgel, José Neto, Flávia Porto, Rafael Montenegro, Gabriel Espinosa, Alex Itaborahy, Paulo Farinatti

P4.10 - ID 486
EFFECT OF ANODAL TRANSCRANIAL DIRECT CURRENT STIMULATION ON LOWER LIMBS MUSCULAR FATIGUE DURING ISOKINETIC PROTOCOL
Rebecca Cantreva, Jonas Gurgel, Gabriela Moreira, Flávia Porto, Rafael Montenegro, Gabriel Espinosa, Alex Itaborahy, Paulo Farinatti

28.06.2011 13:00
Faculty Restaurant & Sports areas (Super Bock Lounge)
Lunch & Animated Sports Activities (Aero-Step)

28.06.2011 14:30
Auditorium
Conference 3
Carlo de Luca
CONTROL OF MOTOR UNITS DURING VOLUNTARY ISOMETRIC FORCE-PRODUCTION: IMPLICATIONS FOR EXERCISE
Chairperson: Drew Harrison
28.06.2011 15:30
Auditorium
Oral Session 3 (Electromyography applied to Sports Biomechanics)
Chairperson: Leandro Machado

ID419
THE EFFECT OF JUVENILE IDIOPATHIC ARTHRITIS ON LOWER LIMB MUSCLE ACTIVITY IN THE
PROPULSION PHASE OF THE COUNTER MOVEMENT JUMP
Kevin Dwyer, Matthew J Kennedy, Mario Lamontagne, Johannes Roth

ID454
THE EFFECTS OF WEARING SPANDEX WEAR WITH COMPRESSION BAND ON MUSCLE
ACTIVITY DURING A GOLF SWING
Dong-soo Kim, Woen-sik Chae, Young-tae Lim, Ho-youl Kang, Chang-soo Yang, Gye-san Lee, Nyeon-ju Kang

ID520
SEMG MEASUREMENTS ON LAND AND IN WATER PRIOR TO AND AFTER 60-90 MINUTES OF
SUBMERSION (SWIMMING) ARE HIGHLY RELIABLE
Bjørn Harald Olstad, Jan Cabri, Christoph Zinner, Neuza Nunes, Per-Ludvik Kjendlie

ID568
ELECTROMYOGRAPHIC ANALYSIS OF IMPINGEMENT SYNDROME: COMPARISON IN
VOLLEYBALL ATHLETES
Leonor Oliveira, Camilo Moreira, Paulo Carvalho

ID570
THE SWALLOW ELEMENT AND MUSCULAR ACTIVATIONS
Manuel Campos, Filipa Sousa, Eunice Lebre

ID584
A PRELIMINARY STUDY ON HOW FATIGUE AFFECTS SCORING AVERAGE IN PROFESSIONAL
DARTS
Michael Walsh, Magdalena Tyndyk, John Barton, Brendan O’Flynn, Cian O’Mathuna

28.06.2011 15:30
Room 1
Oral Session 4 (Biomechanics of Individual Sports – Cycling and Kayaking)
Chairperson: Ross Sanders

ID420
INFLUENCE OF RACING POSITION ON CYCLING PATTERNS
Umberto Emanuele, Tamara Horn, Jachen Denoth
ID426
STATIC VERSUS DYNAMIC EVALUATION IN BIKE FITTING: INFLUENCE OF SADDLE HEIGHT ON LOWER LIMB KINEMATICS
Ventura Ferrer-Roca, Andreu Roig, Pedro Galilea, Juan García-López

ID480
PHYSIOLOGICAL AND ELECTROMYOGRAPHIC RESPONSES AT THREE LEVELS OF BICYCLE SEAT HEIGHT
Yi-Ling Chen, Hsin-Wei Huang, Pin-Hui Chen, Yu-Ming Lee, Heng-Ju Lee

ID515
3D KINEMATICS APPLIED TO THE STUDY OF INDIVIDUAL BMX GATE START TECHNIQUE
Kostas Gianikellis, Andreas Skiadopoulos, Alonso Bote

ID428 (NIA)
KINEMATICS IN ELITE KAYAKERS WHILE PADDLING A SLIDING ERGOMETER EQUIPPED WITH STANDARD AND SWIVEL SEATS
Vincent Fohanno, Floren Colloud, Khalil Ben Mansour, Patrick Lacouture

ID437
ANALYSIS OF THE ON-WATER PADDLING FORCE PROFILE OF AN ELITE KAYAKER
Beatriz Gomes, Nuno Viriato, Ross Sanders, Filipe Conceição, João Paulo Vilas-Boas, Mário Vaz

28.06.2011 15:30
Room 9
Oral Session 5 (Biomechanics of Individual Sports)
Chairperson: Jacqueline Alderson

ID491
A COMPARISON OF PLANTAR PRESSURES BETWEEN TWO DIFFERENT PLAYING SURFACES IN TENNIS
Michael Eckl, Philipp Kornfeind, Arnold Baca

ID569 (NIA)
THE IMPORTANCE OF WRIST FLEXION AND X-FACTOR IN THE GOLF SWING: A FORWARD KINEMATIC APPROACH
Matthew Sweeney, Peter Mills, Jacqueline Alderson, Bruce Elliott

ID577
HITTING TO DIFFERENT SPOTS ON THE COURT: THE BALL KINEMATICS OF THE PROFESSIONAL TENNIS SERVICE
Machar Reid, David Whiteside, Bruce Elliott
ID536
KINETIC ANALYSES OF TWO FENCING ATTACKS–LUNGE AND FLECHE
Nathan Morris, Mark Farnsworth, D.G.E. Robertson

ID523
THE RELATIONSHIP BETWEEN THE BARBELL TRAJECTORIES OF SNATCH AND BCH ANGLES
Yi-Hsuan Chen, Hung-Ta Chiu

ID469
BIOMECHANICAL ANALYSIS OF THE EVADING WITH PUSHING TECHNIQUE IN TAI CHI PUSH HANDS
Hui-Chuan Chen, Shih-Yu Kuo, Kuangyou B. Cheng

28.06.2011 15:30
Exhibition Hall – Indoor track
Applied Session: TRACK AND FIELD - JUMPS
Chairperson: Filipe Conceição

DATA COLLECTION IN LONG JUMP
Athletes Preparation and Familiarization with equipments and procedures, in parallel with:
ESTABLISHING THE MAIN FOCUS IN DATA COLLECTION (20’):
Gert-Peter Brüggemann
Mark King
Nick Linthorne

DATA COLLECTION - LONG JUMP RUN-UP, TAKE-OFF AND AERIAL PHASE (45’):
Measurement of approach run velocities, three dimensional measurements of athletes' performance and ground reaction forces during take-off and during the aerial phase.

Invited Athletes:
Naide Gomes
World Indoor Champion
Gaspar Araujo
2004 European Team Champion (Turkey) LJ – 8,15m (v) 8,10m (1st)
Marcus Caldeira
2007 European Juniors Championship (3rd);

28.06.2011 17:00
Exhibition Hall – Coffee-break
28.06.2011 17:30
Auditorium
Oral Session 6 (Biomechanics of Injuries and Treatment)
Chairperson: Herman Schwameder

ID314
INFLUENCE OF TWO TAPINGS ON THE REACTION TIME OF THE PERONEAL MUSCLES
A Ferreira, P Monteiro, P Carvalho, Camilo Moreira

ID417 (NIA)
NEUROMUSCULAR ADAPTATIONS TO BALANCE AND TECHNIQUE TRAINING DURING SIDESTEPPING: IMPLICATIONS FOR ACL INJURY RISK
Cyril Donnelly, Bruce Elliott, Tim Doyle, Caroline Finch, Alasdair Dempsey, David Lloyd

ID492 (NIA)
JOINT KINEMATICS OF LANDING IN ACL REHABILITATED VOLUNTEERS
Sarah Breen, Andrew J. Harrison, Ian C. Kenny

ID493
BODY KINEMATICS DURING SINGLE-LEG LANDING FROM VARYING HEIGHTS AND DISTANCES– IMPLICATIONS FOR NON-CONTACT ACL INJURIES: CASE REPORT
Nicholas Ali, D. Gordon, E. Robertson, Gholamreza Rouhi

ID498
THE ANTERIOR CRUCIATE LIGAMENT INURY PREVENTION PROGRAM: A META-ANALYSIS
Chang-Soo Yang, Gye-San Lee, Jin-Goo Kim, Yong-Seuk Lee, Chul-Soo Chung, In-Sik Shin, Young-Hoo Kwon, Suk-In Lee, Jin Yoo, Bee-Oh Lim

ID544 (NIA)
EFFECT OF BRACE TYPE ON KNEE JOINT LAXITY AND FUNCTIONAL ACHIEVEMENTS FOR PATIENTS WITH ACL RUPTURED KNEES
Gerda Strutzenberger, Michel Braig, Stefan Sell, Hermann Schwameder

28.06.2011 17:30
Room 1
Oral Session 7 (Biomechanical Modelling and Simulation)
Chairperson: Maarten Bobbert

ID470
A VIRTUAL CRANKSHAFT THIGH MODEL TO ESTIMATE TIBIAL-FEMORAL TRANSVERSE PLANE KINEMATICS
Daniel N. Bassett, Matteo R. Bosisio, Thomas S. Buchanan, Mario Lamontagne, Giuliano G. Cerulli
ID500 (NIA)
BIOMECHANICAL MODELLING FOR COMPUTATION OF KNEE JOINT TORQUE IN DIFFERENT STRATEGIES OF STOP-JUMP LANDING
Leili Mahdieh, Shahram Lenjannejadian, Gholamali Ghasemi, Mehrdad Poorsina, Sara Mirtavoosi

ID507
OPTIMALITY CRITERIA FOR HUMAN RUNNING INVESTIGATED BY FORWARD DYNAMICS SIMULATIONS
Ross H. Miller, Brian R. Umberger, Graham E. Caldwell

ID552 (NIA)
COMPUTATION OF ANKLE TORQUE IN DIFFERENT STRATEGIES OF LANDING BY DYNAMIC MODELLING
Sara Mirtavoosi, Shahram Lenjannejadian, Khalil Khayambashi, Hamid Salehi, Leili Mahdieh

ID373
GROUND REACTION FORCE AND PLANTAR PRESSURE OF TWO JUMPING HEAD-OUT AQUATIC EXERCISES
Mª Margarida Espanha, Júlia Teles, Valquiria Alves, Sandra Pais

ID266
KINETICS OF THE LOWER EXTEREMITIES IN ERGOMETER ROWING DEPEND ON BODY MASS INDEX
Karen Roemer, Stephanie Hamilton, Chris Richter

28.06.2011 17:30
Room 9
Applied Session: TRACK AND FIELD - JUMPS
Chairperson: Filipe Conceição

TAKE-OFF FORCES AND IMPULSES IN THE LONG JUMP
Nick Linthorne

COMPUTER SIMULATION OF THE TAKEOFF PHASE IN RUNNING JUMPS
Mark King

ASSOCIATION OF MUSCLE-TENDON MECHANICAL PROPERTIES AND JUMPING PERFORMANCE - SOME BIOMECHANICAL CONSIDERATIONS
Gert-Peter Brueggemann

PRESENTATION OF THE JUMPS’ DATA COLLECTED
Filipe Conceição
28.06.2011 19:00
Super Bock Lounge
Happy-hour – Academic “Tuna Songs”

28.06.2011 20:00
Super Bock Lounge

DELSYS®

“Delsys” Barbecue – St. Peter’s Popular Night
Ethnographic Performance - NEFUP

28.06.2011 23:00
Bus Shuttle to Hotels
29.06.2011 08:30
Bus Shuttle from Hotels

29.06.2011 09:00
Auditorium
Conference 4
Mark King
COMPUTER SIMULATION MODELLING IN SPORTS BIOMECHANICS
Chairperson: Mário Vaz

29.06.2011 10:00
Auditorium
Oral Session 8 (Biomechanical Modelling and Simulation)
Chairperson: Wangdo Kim

ID450
ELECTROMYOGRAPHIC WAVELET ANALYSIS OF LOWER EXTERNITY MUSCLES DURING SPRINT START AND TWO SUBSEQUENT STEPS
Saeed Ilbeigi, Bart Van Gheluwe

ID27
RELATIVE CONTRIBUTION OF THE JOINT MOMENTS TO THE ANGULAR ACCELERATION OF THE LOWER LIMB IN HOPING EXERCISE
Filipa João, António Veloso

ID540
OPTIMAL STRATEGIES IN DIVING FOR DIVES OF THE REVERSE GROUP VIA EVOLUTIONARY ALGORITHMS
Axel Schüler, Thomas Köthe, Thomas Molka, Falk Hildebrand

ID300 (NIA)
IS THE PRINCIPAL COMPONENT ANALYSIS A MORE EFFICIENT METHOD TO DETECT DIFFERENCES ON BIOMECHANICAL VARIABLES BETWEEN GROUPS OF PARTICIPANTS?
Giulia Mantovani, Mario Lamontagne, Daniel Varin, Giuliano G. Cerulli, Paul E. Beaulé

ID399 (NIA)
ANALYSIS OF THE CONTRACTION OF THE PUBOVISCERAL MUSCLE BASED ON A COMPUTATIONAL MODEL
Thuane da Roza, Maita Poli de Araújo, Teresa Mascarenhas, Joana Loureiro, Marco Parente, Renato Natal Jorge
ID457
MODELLING THE BEHAVIOUR OF SERIES ELASTIC ELEMENT DURING IMPULSIVE MOVEMENTS
Filipe Conceição, João Carvalho

29.06.2011 10:00
Room 1
Oral Session 9 (Biomechanics of Gait and Running)
Chairperson: John Ostarello

ID508 (NIA)
AN INVESTIGATION INTO THE WITHIN AND BETWEEN PARTICIPANT VARIANCE IN THREE-DIMENSIONAL BREAST KINEMATIC DATA DURING A 5 KM RUN
Alexandra Milligan, Joanna Scurr, Chris Mills, Louise Wood

ID543
THE EFFECT OF CHANGING-SPEED ON THE TOE HEIGHT ON TREADMILL RUNNING
Ya-Han Chang, Pei-Wei Chi, Hung-Ta Chiu

ID458
EFFECTS OF FATIGUE ON THE LEG KINETICS IN ALL-OUT 600M RUNNING
Hirosuke Kadono, Michiyoshi Ae, Yuta Suzuki, Kazuhito Shibayama

ID397 (NIA)
THE EFFECT OF THE BEND ON TECHNIQUE AND PERFORMANCE DURING MAXIMAL SPEED SPRINTING
Sarah M. Churchill, Aki I.T. Salo, Grant Trewartha

ID421
CHANGES IN STEP CHARACTERISTICS DURING SPRINT PERFORMANCE DEVELOPMENT
Laura Charalambous, David G. Kerwin, Gareth Irwin, Ian N. Bezodis, Stephen Hailes

29.06.2011 10:00
Room 9
Oral Session 10 (Biomechanical Instrumentation & Evaluation Methods)
Chairperson: Rafael Bahamonde

ID127
THE EFFECT OF DIGITAL FILTERING PROCEDURES ON KNEE JOINT MOMENTS IN SPRINTING
Neil E. Bezodis, Aki I. T. Salo, Grant Trewartha

ID395
COMPARISON OF VERTICAL GRF OBTAINED FROM FORCE PLATE, PRESSURE PLATE AND INSOLE PRESSURE SYSTEM
Marcelo Castro, Denise Soares, Leandro Machado
A COMPARISON OF VERTICAL JUMP DISPLACEMENTS BETWEEN A VERTEC™ AND A FORCEPLATE
Bryan Christensen, Sarah Hilgers, John Schuna Jr, Casey Radenic, Kassie Krebsbach, Donna Terbizan, Jared Tucker, Trista Manikowske, Gary Liguori

APPLICATION OF PRINCIPAL COMPONENT ANALYSIS IN THE STUDY OF TASKS WITH DIFFERENT MECHANICAL CONSTRAINTS
Gustavo Leporace, Adriane M. Muniz, Glauber Pereira, Leonardo Metsavaht, Luiz Alberto Batista, Jurandir Nadal

WIRELESS VERTICAL DISPLACEMENT MEASUREMENT DURING RUNNING USING AN ACCELEROMETER AND A MOBILE PHONE
Martin Eriksson, Dennis Sturm, Kjartan A. Halvorsen, Lennart Gullstrand

IN VIVO MEASUREMENT OF STIFFNESS AND VISCOSITY OF SURAL TRICEPS
F. París-Garcia, A. Barroso, J. Ribas, J. Cañas, F. Paris

29.06.2011 11:30
Exhibition Hall
Coffee-break

29.06.2011 12:00
Exhibition Hall
Poster Sessions 5 to 7

Poster Session 5 (Biomechanics of Gait and Running)

P5.1 - ID 542
A CASE STUDY ON GROUND REACTION FORCES IN SPRINT HURDLES
Kazuhito Shibayama, Norihisa Fujii, Shunsuke Takenaka, Satoru Tanigawa, Michiyoshi Ae

P5.2 - ID 587
Dynamometric Analysis of resisted sled on sprint run
Mário Nogueira, Nuno Viriato, Mário Vaz, João Carvalho, Filipe Conceição

P5.3 - ID 595
STANDARD MOTION OF SPRINT RUNNING FOR MALE ELITE AND STUDENT SPRINTERS
Keita Yada, Michiyoshi Ae, Satoru Tanigawa, Akira Ito, Koji Fukuda, Kota Kijima
P5.4 - ID 594
SAGITTAL AND FRONTAL LOWER LIMBS KINETICS DURING STEPPING DOWN IN TAICHI ELDERLY
Tzu-Hsiang Yang, Chen-Fu Huang, Jung-Chun Chi

P5.5 - ID 545
KINETICS OF THE SUPPORT LEG JOINTS IN THE SIDE STEP CUTTING TECHNIQUE
Yuta Suzuki, Michiyoshi Ae, Shunsuke Takenaka, Norihisa Fujii

P5.6 - ID 422
CHANGE IN TRUNK MUSCLE ACTIVITY DURING INCLINE TREADMILL RUNNING
Paul T. Ewbank, Randall L. Jensen

P5.7 - ID 518
CHANGES IN FOOT CHARACTERISTICS AFTER A 3-HOUR EXERCISE BOUT
Bryson Nakamura, Heidi Orloff, Sean Field-Eaton, Erienne Olesh

P5.8 - ID 126
INFLUENCE OF ANKLE PASSIVE RANGE OF MOTION ON THE PERFORMANCE OF THE STAR EXCURSION BALANCE TEST
GG Zeitoune, G. Leporace, SM Pinto, MG Zeitoune, LA Batista

P5.9 - ID478
KINEMATICS AND KINETICS OF THE SWING LEG IN A RUMBA WALK
Raul Landeo, Michael Chang

Poster Session 6 (Biomechanics of Individual Sports)

P6.1 - ID 151
GIANT SWINGS WITH TURNS COMPLETED TO HANDSTAND ON UNEVEN BARS
Kylie Thomas, Elizabeth J. Bradshaw

P6.2 - ID 430 (NIA)
INFLUENCE OF A SUSPENDED AID ON THE AMPLITUDE VARIABLES OF CIRCLES ON POMMEL HORSE
Toshiyuki Fujihara, Pierre Gervais

P6.3 - ID 431 (NIA)
INFLUENCE OF A SUSPENDED AID ON THE HIP MOMENT PROFILES DURING CIRCLES ON POMMEL HORSE
Toshiyuki Fujihara, Pierre Gervais
P6.4 - ID 48 (NIA)  
INFLUENCE OF A SUSPENDED AID ON WRIST LOADING PATTERN DURING CIRCLES ON POMMEL HORSE  
Toshiyuki Fujihara, Pierre Gervais

P6.5 - ID 285  
COMPARATIVE STUDY OF GIANT SWINGS ON THE PARALLEL BARS  
Spiros Prassas

P6.6 - ID 592  
KINEMATIC ANALYSIS OF RING-SHAPE LEAP AFTER STEPPED UP THE LEGS AND BACKWARD BALANCE IN ARTISTIC GYMNASTICS  
Liang Cheng, Xi Li, Jihe Zhou

P6.7 - ID 349  
Kinematics and angular momentum contributions to the TOE-on Tkachev on Uneven Bars in female gymnastics  
Gareth Irwin, Michelle Manning, David G. Kerwin

P6.8 - ID 562  
THE CENTER OF MASS TRAJECTORY DURING FIXED-STANCE PUSH HANDS MOVEMENTS OF TAI CHI CHUAN  
Lin-Hwa Wang, Kuo-Cheng Lo, Sheng-Weng Shih, Fong-Chin Su

P6.9 - ID 589  
ANALYSIS OF THE TAKEOFF MOTION FOR THE WORLD TOP FEMALE TRIPLE JUMPERS  
Ai Tsukuno, Michiyoshi Ae, Hiroyuki Koyama, Yuya Muraki, Megumi Takamoto

P6.10 - ID 574 (NIA)  
THE IMPACT OF BODY MASS AND SKILL LEVEL ON ROWING KINEMATICS  
Chris Richter, Stephanie Hamilton, Karen Roemer

Poster Session 7 (Miscellaneous)

P7.1 - ID 415  
KINETIC ANALYSIS OF EACH HAND IN BASEBALL BATTING MOTION AT DIFFERENT HITTING POINT HEIGHTS  
Kazumichi Ae, Sekiya Koike

P7.2 - ID 549  
INFLUENCE OF THE FOOT-FLOOR INTERFACE ON SQUATTING PERFORMANCE  
Kathleen Shorter, Jason Lake, Neal Smith, Mike Lauder

P7.3 - ID 474  
MOMENTS IN THE KNEE AND HIP DURING DESCENT AND ASCENT OF SQUATS  
Turgut Gülay, Renate List, Silvio Lorenzetti
P7.4 - ID 453
INFLUENCE OF ANKLE TAPING ON DYNAMIC BALANCE PERFORMANCE
Ian C. Kenny, Can Wu, Johnson McEvoy

P7.5 - ID 496 (NIA)
HIP AND LUMBO-PELVIC STRENGTH IN SUBJECTS WITH PATELLOFEMORAL PAIN SYNDROME: A SYSTEMATIC REVIEW OF THE LITERATURE
Gustavo Leporace, Rodrigo Paiva, Leonardo Metsavaht, Luiz Alberto Batista

P7.6 - ID 466
Estimating Anterior Tibial Translation from Model-based Image-Matching of a Noncontact ACL Injury in Professional Soccer
Hideyuki Koga, Roald Bahr, Tron Krosshaug

P7.7 - ID 405
A BIOMECHANICAL ANALYSIS OF FRONT VERSUS BACK SQUAT: INJURY IMPLICATIONS.
D. Diggin, C. O'Regan, N. Whelan, S. Daly, V. McLoughlin, L. McNamara, A. Reilly

P7.8 - ID 582
COMPARISON OF TIBIAL IMPACT ACCELERATIONS: Video vs ACCELEROMEter
Erich J. Petushek, Chris Richter, David Donovan, William P. Ebben, Randall L. Jensen

P7.9 - ID 452
SHOULDER KINETICS DURING PITCHING AND THEIR RELATION TO REPORTED SHOULDER PAIN
David Keeley, Gretchen Oliver, Christopher Dougherty

P7.10 - ID 467
LOWERING VELOCITY OF THE CENTRE OF MASS DURING THE APPROACH AFFECTS JUMP HEIGHT IN VOLLEYBALL SPIKE JUMPS
Claas H. Kuhlmann, Karen Roemer, Thomas L. Milani

29.06.2011 13:00
Faculty Restaurant & Sports areas (Gymnastics' Pavilion)
Lunch & Animated Sports Activities (Escalade)

29.06.2011 14:30-18:00
Bus Shuttle for the Social Tour
Historic Porto, and Port Wine Peddy-Paper
Return to Hotels
30.06.2011 08:30
Bus Shuttles from Hotels

30.06.2011 09:00
Auditorium
Conference 5
Walter Herzog
UNDERSTANDING MUSCLE PROPERTIES IN SPORTS PERFORMANCE OPTIMIZATION
Chairperson: António Veloso

30.06.2011 10:00
Auditorium
Oral Session 11 (Biomechanics of Muscles and Connective Tissue)
Chairperson: João Abrantes

ID408 (NIA)
DOES TECHNIQUE CHANGE AFFECT MUSCULAR SUPPORT AT THE KNEE IN SIDESTEP CUTTING?
Alasdair R Dempsey, Bruce C Elliott, David G Lloyd

ID583 (NIA)
SIDESTEP CUTTING TECHNIQUE AND KNEE VALGUS MOMENTS
Eirik Kristianslund, Tron Krosshaug

ID325
NON INVASIVE MONITORING OF IN-VIVO MUSCLE-TENDON MECHANICAL PROPERTIES OF ATHLETES WITH AN ULTRASONIC DETECTION SCHEME
M. Zakir Hossain, Wolfgang Grill

ID90
TRICEPS SURA MUSCULOTENDINOUS STIFFNESS: RELATIVE DIFFERENCES BETWEEN SOCCER AND NON-SOCCER PLAYERS
Auréliio Faria, Ronaldo Gabriel, João Abrantes, Paola Wood, Helena Moreira

ID477
INFLUENCE OF ATHLETIC TRAINING ON VERTICAL STIFFNESS ATTENUATION
Emma L. Millett, Raul Landeo

ID461 (NIA)
JOINT MOTION AND STIFFNESS REGULATION OF THE KNEE JOINT IN CHOICE REACTION SIDESTEP CUT TASKS
Kenji Kimura, Shinji Sakurai
30.06.2011 10:00
Room 1
Oral Session 12 (Biomechanics of Individual Sports – Track and Field)
Chairperson: Kostas Gianikellis

ID103
BIOMECHANICAL ANALYSIS AND FUNCTIONAL ASSESSMENT OF DAYRON ROBLES, WORLD RECORD HOLDER AND OLYMPIC CHAMPION IN 110 M HURDLES
José Luis López, Josep Maria Padullés, Helena Josefin Olsson

ID262
CHANGES IN STEP CHARACTERISTICS BETWEEN THE MAXIMUM VELOCITY AND DECELERATION PHASES OF THE 100 METRE SPRINT RUN
Ian N. Bezodis, Gareth Irwin, Gregor Kuntze, David G. Kerwin

ID57
INTRA-LIMB KINEMATIC STRATEGIES OF MAXIMUM VELOCITY PHASE SPRINT RUNNING PERFORMANCES
Marianne Gittoes, Ian Bezodis, Cassie Wilson

ID465
TARGET VALUE FOR THE MAXIMUM RUN-UP SPEED OF THE LONG JUMP BASED ON THE PERFORMANCE LEVEL
Hiroyuki Koyama, Yuya Muraki, Michiyoshi Ae

ID 590
EFFECT OF AGE ON HIGH JUMP TAKEOFF BIOMECHANICS
Javier Bermejo, José Manuel Palao, José L. L. Elvira

ID 160 (NIA)
LOWER-LIMB BIOMECHANICAL ASYMMETRY IN MAXIMAL VELOCITY SPRINT RUNNING
Timothy Exell, David Kerwin, Gareth Irwin, Marianne Gittoes

30.06.2011 10:00
Room 9
Oral Session 13 (Biomechanical Instrumentation & Evaluation Methods)
Chairperson: Chenfu (Peter) Huang

ID530
COMPARISON OF WAVE DRAG FOR BOTH THE MALE AND FEMALE FORM
David Pease, Ross Vennell
ID412
FRONT CRAWL PROPULSIVE PHASE DETECTION USING INERTIAL SENSORS
Farzin Dadashi, Florent Crettenand, Gregoire Millet, Ludovic Seifert, John Komar, Kamiar Aminian

ID503
ESTIMATION OF ACTIVE DRAG USING AN ASSISTED TOW OF HIGHER THAN MAX SWIM VELOCITY THAT ALLOWS FLUCTUATING VELOCITY & VARYING TOW FORCE
Bruce Mason, Gina Sacilotto, Tracey Menzies

ID564 (NIA)
UNDERWATER COMPARISON OF WAND AND 2D PLANE NONLINEAR CAMERA CALIBRATION METHODS
Amanda P. Silvatti, Thiago Telles, Fábio A. S. Dias, Pietro Cerveri, Ricardo M. L. Barros

ID514
FORCE AND CENTER OF PRESSURE EVALUATION WITH AN INSTRUMENTED PLATFORM FOR SWIMMING PERFORMANCE OPTIMIZATION
Luis Mourão, Leandro Machado, Ricardo Fernandes, J. Paulo Vilas-Boas, Mário Vaz

ID443
RELIABILITY OF A NEW METHOD TO ANALYSE AND TO QUANTIFY ATHLETES’ DISPLACEMENT
João Serrano, Orlando Fernandes

30.06.2011 11:30
Exhibition Hall
Coffee-break

30.06.2011 12:00
Exhibition Hall
Poster Sessions 8 to 10

Poster Session 8 (Biomechanics of Individual Sports)

P8.1 - ID 404
KINEMATICAL AND NEUROMUSCULAR ASPECTS RELATED TO PERFORMANCE DURING THE SWIMMING START
Daniele Detanico, Stephanie Iara Heidorn, Juliano Dal Pupo, Fernando Diefenthaler, Saray Giovana dos Santos

P8.2 - ID 537
COMPARATIVE ANALYSIS OF TEMPORAL PARAMETERS OF DIFFERENT TECHNIQUES OF THE FREESTYLE FLIP TURN
Suzana M Pereira, Caroline Ruschel, Thiago G Souza, Luciana G Araujo, Pedro Gonçalves, Ricardo Fernandes, Helio Roesler, João Paulo Vilas-Boas
MUSCULAR AND ARM CRAWL STROKE POWER: EVALUATING THEIR RELATIONSHIP
Rocio Dominguez-Castells, Raul Arellano

13th FINA WORLD CHAMPIONSHIP FINALS: STROKE KINEMATICS AND RACE TIMES ACCORDING TO PERFORMANCE, GENDER AND EVENT
Sérgio Jesus, Mário J Costa, Daniel A Marinho, Nuno D Garrido, António J Silva, Tiago M Barbosa

ARM SYMMETRY IN 11-13 YEARS OLD FRONT CRAWL SWIMMERS
Ana Silva, Pedro Figueiredo, Susana Soares, João Paulo Vilas-Boas, Ricardo J. Fernandes

ELECTROMYOGRAPHIC ANALYSIS OF TWO DIFFERENT FEET POSITIONS IN BACKSTROKE START
Karla de Jesus, Kelly de Jesus, Pedro Figueiredo, Pedro Gonçalves, Suzana Pereira, João Paulo Vilas-Boas, Ricardo Fernandes

THE EFFECT OF FATIGUE ON THE 200 M FRONT CRAWL UNDERWATER STROKE PATTERN
Pedro Figueiredo, Rafael Nazário, André Cereja, João Paulo Vilas-Boas, Ricardo J Fernandes

THE RELATIONSHIP BETWEEN FRONT CRAWL PERFORMANCE AND HYDRODYNAMICS IN YOUNG FEMALE SWIMMERS

A KINEMATIC ANALYSIS OF THE BREASTROKE KICK
Eric Matheson, Young Hwang, Jennifer Romack, William Whiting, Konstantinos Vrongistinos

LOAD DURING THE VERTICAL JUMP IN WATER: VALUES FOR PRESCRIPTION IN HYDROTHERAPY
Alessandro Haupenthal, Caroline Ruschel, Heiliane B Fontana, Daniela P Santos, Paulo R Cerutti, Helio Roesler

THE EFFECT OF DIRECT VIDEO FEEDBACK ON PERFORMANCE OF TENNIS SERVE
Ruhil A. Razali, Edin K. Suwarganda, Izwan M. Zawaki
P9.2 - ID 484
PRELIMINARY ANALYSIS OF SLEDGE REACTION FORCES DURING CYCLICAL LOADING OF THE TRICEPS SURAE
Laura-Anne M. Furlong, Andrew J. Harrison

P9.3 - ID 476
COMPARISON OF BALLISTIC AND NON-BALLISTIC LOWER-BODY RESISTANCE EXERCISE PERFORMANCE. METHODS TO DETERMINE THE POSITIVE LIFTING PHASE
Jason Lake, Mike Lauder, Neal Smith

P9.4 - ID 475
BARBELL KINEMATICS SHOULD NOT BE USED TO ESTIMATE BARBELL AND BODY SYSTEM CENTRE OF MASS POWER IN THE BACK SQUAT
Jason Lake, Mike Lauder, Neal Smith

P9.5 - ID 161 (NIA)
CALCULATING CENTRE OF PRESSURE FROM MULTIPLE FORCE PLATES FOR KINETIC ANALYSES OF SPRINT RUNNING
 Timothy Exell, David Kerwin, Gareth Irwin, Marianne Gittoes

P9.6 - ID 166
CONTACT TIME, JUMP HEIGHT, AND REACTIVE STRENGTH INDEX DURING DROP JUMPS IN WATER, ON PADDED AND NONPADDED CONDITIONS
Mitchell L. Stephenson, William P. Ebben, Eamonn P. Flanagan, Randall L. Jensen

P9.7 - ID 176
RECONSTRUCTION ERROR OF CALIBRATION VOLUME’S COORDINATES FOR 3D SWIMMING KINEMATICS
Pedro Figueiredo, João Paulo Vilas-Boas, Ricardo J Fernandes

P9.8 - ID 445
RELIABILITY OF ELECTROMAGNETIC TRACKING IN DESCRIBING PITCHING MECHANICS
David W Keeley, Gretchen D Oliver, Christopher P Dougherty, Michael R Torry

P9.9 - ID 479 (NIA)
REARFOOT ANGLE VELOCITIES DURING RUNNING - A COMPARISON BETWEEN OPTOELECTRONIC AND GYROSCOPIC MOTION ANALYSIS
Pavle Lederer, Reinhard Blickhan, Heiko Schlarb

P9.10 - ID 393
RELATIVE JOINT MOMENT CONTRIBUTION TO THE POWER GENERATED IN A MARTIAL ARTS KICK – INFLUENCE OF SKILL LEVEL
Silvia Cabral, António P Veloso, Vera Moniz-Pereira
Poster Session 10 (Biomechanical Modelling and Simulation)

**P10.1 - ID 483**  
EFFECT OF SEAT TUBE ANGLE ON THE WORK EFFICIENCY OF LOWER LIMB MUSCLES DURING CYCLING  
Kyung Ryul Chung, Joon Ho Hyeong, Sa yup Kim, Chun Ho Choi

**P10.2 - ID 460**  
CHANGES IN LEG COMPLIANCE DURING HOPPING TO EXHAUSTION  
Wangdo Kim, Filipa João, António Veloso, Arkady S. Voloshin

**P10.3 - ID 472**  
EFFECTS OF LOWER BODY COMPRESSION GARMENT IN MUSCLE OSCILLATION AND TISSULAR INJURY DURING INTENSE EXERCISE.  
Xantal Borràs, Xavier Balius, Francheck Drobnic, Lluis Til, Antonio Turmo, Javier Valle

**P10.4 - ID 528 (NIA)**  
CO-CONTRACTION OF TIBIALIS ANTERIOR AND SOLEUS MUSCLES DURING EXERCISES WITH DIFFERENT CONDITIONS OF INSTABILITY  
Jomilto Praxedes, Gustavo Leporace, Sergio Pinto, Glauber Pereira, Araildo Silva, Luiz Alberto Batista

**P10.5 - ID 37**  
CENTRAL AND PERIPHERAL FATIGUE IN WOMEN ATHLETES  
Heidi Orloff, Allison Craven, Fiona Gornick

**P10.6 - ID 505**  
COMPARISON OF VISCOELASTIC STRESS RELAXATION RESPONSE BETWEEN FLEXIBLE AND INFLEXIBLE INDIVIDUALS  

**P10.7 - ID 495**  
KINETIC PARAMETERS DETERMINANTS OF PERFORMANCE IN COUNTER MOVEMENT JUMP  
Juliano Dal Pupo, Daniele Detanico, Saray Giovana dos Santos

**P10.8 - ID329**  
RELATIONSHIP BETWEEN LEG DOMINANCE TESTS AND TYPE OF TASK  
Jessica Velotta, Josh Weyer, Amanda Ramirez, Jamila Winstead, Rafael Bahamonde

**P10.9 - ID490**  
KINETIC PROFILE AND INCIDENCE OF INJURIES AMONG HIGH PERFORMANCE TRAMPOLINE GYMNASTS  
S. M. Kuisis, T.C. Camacho, S. M. Dafel, D. C. Janse van Rensburg
30.06.2011 13:00  
Faculty Restaurant & Sports areas (Super Bock Lounge)  
Lunch & Animated Sports Activities (Ball-room & Salsa Dance)

30.06.2011 14:30  
Auditorium  
Conference 6  
Bruce Elliot  
THE PLAYER DEVELOPMENT PATHWAY: A BIOMECHANICAL PERSPECTIVE  
Chairperson: Timothy R. Ackland

30.06.2011 15:30  
Auditorium  
Oral Session 14 (Biomechanics of Gait and Running)  
Chairperson: Ronaldo Gabriel

ID409  
ANGULAR KINEMATICS AND JOINT MOMENTS ANALYSIS IN LOWER LIMB AND PELVIS DURING GAIT IN SAGITTAL PLANE IN PREGNANT WOMEN  
Liliana Aguiar, Rita Santos-Rocha, Marco Branco, Filomena Vieira, Filipa João, Filomena Carnide, António P. Veloso

ID572  
LOCOMOTOR RESPIRATORY COUPLING STRATEGIES DURING WALKING  
Joseph O’Halloran, Joseph Hamill, William McDermott, Jebb Remelius, Richard EA van Emmerik

ID510 (NIA)  
USING INDUCED ACCELERATIONS TO ANALYZE GAIT IN THE ELDERLY  
Vera Moniz-Pereira, Silvia Cabral, Filomena Carnide, António P. Veloso

ID 394 (NIA)  
THE INFLUENCE OF DIFFERENT SPEEDS ON BACKPACKER´S GAIT KINETICS  
Marcelo Castro, Sofia Abreu, Helena Sousa, Cristina Figueiredo, Leandro Machado, Rubim Santos, João Paulo Vilas-Boas

ID566  
INVESTIGATION OF THE MOMENT OF INERTIA AND THE BIOMECHANICAL INTERNAL FORCES ACTING ON THE KNEE DURING HIKING  
Jared Jun Yong Toh, Liao Kin, Wei Xie
ID506
A COMPARISON OF THE BILATERAL, DYNAMIC Q-ANGLE IN FEMALES
Andrea Melicharek, Marilyn K. Miller, Joseph Hazzard

30.06.2011 15:30
Room 1
Oral Session 15 (Miscellaneous)
Chairperson: Margarida Espanha

ID290
VERTICAL BREAST EXTENSION DURING TREADMILL RUNNING
Joanna Scurr, Jennifer White, Alexandra Milligan, Debbie Risius, Wendy Hedger

ID392
EFFECT OF LOWER BODY COMPRESSION GARMENT IN RUNNING MECHANICS
Xantal Borràs, Xavier Balius, Franchek Drobnic

ID61 (NIA)
THE RELATIONSHIP BETWEEN SHOULDER COUNTER-ROTATION AND LUMBAR MECHANICS DURING FAST BOWLING
Helen Crewe, Amity Campbell, Bruce Elliott, Jacqueline Alderson

ID597 (NIA)
SPORTS-RELATED ORO-FACIAL INJURIES: WHICH KIND OF MOUTHGUARD WILL BE THE MOST SUITABLE TO PLAY SAFE?
M. Clemente, A. Silva, A. Sousa, J. Gabriel, J. Pinho

ID146
THE COUPLING BETWEEN PRONATION AND TIBIAL INTERNAL ROTATION IS DIFFERENT IN RUNNER’S WITH ANTERIOR KNEE PAIN
Pedro Rodrigues, Trampas TenBroek, Richard van Emmerick, Joseph Hamill

ID25
ANKLE LIGAMENT STRAIN DURING SUPINATION SPRAIN INJURY – A COMPUTATIONAL BIOMECHANICS STUDY
Daniel Tik-Pui Fong, Feng Wei, Youlian Hong, Tron Krosshaug, Roger C. Haut, Kai-Ming Chan

30.06.2011 15:30
Room 9
Applied Session: SWIMMING BIOPHYSICS
Chairperson: Ricardo Fernandes

FROM TECHNICAL FOUNDATIONS TO INCREASED EFFICIENCY IN SWIMMING
Ross Sanders
ASSESSING GROSS EFFICIENCY AND PROPULSIVE EFFICIENCY IN SWIMMING
Paola Zamparo

TRANSFERRING APPLIED HYDRODYNAMICS TO TECHNICAL TRAINING
Raul Arellano

EVALUATION AND FEEDBACK IN SWIMMING: HISTORICAL OVERVIEW
Bruce Mason

30.06.2011 17:00
Exhibition Hall
Coffee-break

30.06.2011 17:30
Auditorium
Oral Session 16 (Biomechanics of Team Sports)
Chairperson: Xavier Balius

ID539
INTRAINDIVIDUAL VARIABILITY OF THE MOVEMENT PATTERNS IN EXPERT HANDBALL THROWERS
Javier Rojas, Marcos Gutiérrez, Manuel Ortega, Juan Párraga, José Campos

ID 554
EFFECT OF TRAINING ON THE KINEMATICS AND PERFORMANCE IN OVERARM THROWING IN EXPERIENCED FEMALE HANDBALL PLAYERS
Roland van den Tillaar, Mario Marques

ID434
LOADS ACTING ON THE LOCOMOTIVE SYSTEM OF PROFESSIONAL FEMALE VOLLEYBALL PLAYERS DURING THE LANDING PHASE OF SPIKES AND BLOCKS
J. Kabacinski, L.B. Dworak, K. Kmiecik, M. Murawa, J. Maczynski

ID588
HUMERAL RETROVERSION IN OVERHEAD THROWING ATHLETES
Andrea Ribeiro, Augusto Gil Pascoal, Pedro Miguel Ribeiro

ID557
BETTER POSTURAL CONTROL DURING ACCURATE SHOOTING IN ELITE FEMALE BASKETBALL PLAYERS
Yen-Ting Wang, Tsung-Li Tseng, Lin Chi, Chen-fu Huang, Pao-Cheng Lin, Alex J.Y. Lee
ID 152
REAL-TIME SQUATTING SYMMETRY TRAINING USING NINTENDO Wii BALANCE BOARDS
Rian McGough, Kade Paterson, Elizabeth Bradshaw, Adam Bryant, Ross Clark

30.06.2011 17:30
Room 1
Oral Session 17 (Biomechanics of Individual and Adapted Sports)
Chairperson: Wolfgang Potthast

ID439
SPORT INFLUENCE ON FOOTPRINTS OF COLOMBIAN´S POWERLIFTERS, SWIMMERS AND FIELD ATHLETES
Gómez Lessby, Franco Juan Manuel, Nathy Jhon Jairo, Valencia Edwin, Vargas Diana

ID585
IS THE LOCAL MINIMUM IN THE FORCE TIME HISTORY IN COUNTER-MOVEMENT JUMPS RELATED TO JUMP PERFORMANCE?
Gunther Kurz, Christian Stockinger, Anne Richter, Wolfgang Potthast

ID391
KINETICS OF SPRINT CYCLING WITH A BELOW-KNEE PROSTHETIC LIMB: A CASE STUDY OF A PARALYMPIC CHAMPION
Paul Barratt

ID556
SHOT PUT KINEMATICS OF WORLD CLASS ATHLETES WITH AN INTELLECTUAL DISABILITY
Steffen Willwacher, Wolfgang Potthast, Ralf Müller, Gert-Peter Brüggemann

ID241 (NIA)
CHEST WALL KINEMATICS OF ATHLETES WITH TETRAPLEGIA
Juliana Viana Paris, Karine Jacon Sarro, Marlene Moreno, Amanda Piaia Silvatti, Ricardo M. L. Barros

ID522 (NIA)
THE MOMENT OF THE HIP AND KNEE IN OBESE AND NON-OBESE INDIVIDUALS DURING STAIR ASCENT AND DESCENT
Nok-Hin Law, Jing Xian Li, Nok-Yeung Law

30.06.2011 17:30
Room 9
Oral Session 18 (Miscellaneous)
Chairperson: Elisabeth Bradshaw

ID459
INTER-DAY RELIABILITY LEG, KNEE AND ANKLE STIFFNESS MEASURES DURING HOPPING
Corey Joseph, Elizabeth Bradshaw, Ross Clark
ID553
ISOKINETIC LEG STRENGTH CHANGES IN YOUNG FEMALE SOUTH AFRICAN RECRUITS FOLLOWING BASIC MILITARY TRAINING
Paola Wood, Pieter Krüger, Aurélio Faria

ID402
FIRST SECTION OF THE COURSE PERFORMANCE AS A CRITICAL ASPECT IN SKICROSS COMPETITION: 2010 OLYMPIC GAMES & WORLD CUP ANALYSIS
Javier Argüelles, Blanca De la Fuente, Jacek Tarnas, Rocio Domínguez-Castells

ID519 (NIA)
ESTIMATION OF GROUND REACTION FORCES DURING WALKING
Isamu Nishida, D. Gordon E. Robertson, Masato Maeda, Tsuneo Kawano, Keiichi Shirase

ID291
ESTIMATE OF TEMPORAL PARAMETERS DURING SPRINT RUNNING BY TRUNK INERTIAL SENSING: IN FIELD VALIDATION
E. Bergamini, P. Picerno, V. Camomilla, H. Pillet, A. Cappozzo

ID158
EFFECTS OF PILATES TRAINING ON MUSCULAR STRENGTH AND BALANCE IN BALLET DANCERS
Tânia Amorim, Filipa Sousa, Leandro Machado, José Augusto Santos

30.06.2011 17:30
Swimming pool
Applied Session: SWIMMING BIOPHYSICS
Chairperson: Francisco Alves

MAD SYSTEM FOR THE ASSESSMENT OF ACTIVE DRAG AND PROPULSIVE EFFICIENCY
Huub Toussaint

MEASURING ENERGY EXPENDITURE IN SWIMMING TO ASSESS GROSS MECHANICAL EFFICIENCY
Carlo Baldari, Laura Guidetti & Marco Meucci

ASSESSING MUSCULAR AND SWIMMING POWER
Raul Arellano & Rocío Domínguez-Castells
SWIMMING BIOPHYSICAL RELEVANT PARAMETERS EXTRACTED FROM VELOCIMETRY AND ACCELEROMETRY
J. Paulo Vilas-Boas, Leandro Machado, Susana Soares, Ricardo Fernandes, Antônio B. Lima & Miguel Velhote Correia:

QUALISYS Demonstration

30.06.2011 19:00
Super Bock Lounge
Happy-hour – Acrobatic Gymnastics – Flyers (Faculty of Sport)

30.06.2011 20:00
Bus Shuttle to Hotels
01.07.2011 08:30
Bus Shuttle from Hotels

01.07.2011 09:00
Auditorium
Conference 7
Paavo Komi
IDENTIFICATION OF STRETCH-SHORTENING CYCLES (SSC) IN DIFFERENT SPORTS
Chairperson: Filipa Sousa & Pedro Mil-Homens

01.07.2011 10:00
Auditorium
Oral Session 19 (Teaching Biomechanics and Development Biomechanics)
Chairperson: Duane Knudson

ID462
FOURTH NORTH AMERICAN SURVEY OF UNDERGRADUATE BIOMECHANICS INSTRUCTION IN KINESIOLOGY/EXERCISE SCIENCE
Luke R. Garceau, Duane V. Knudson, William P. Ebben

ID471
APPLICATION OF BIOMECHANICAL CONCEPTS IN PROFESSIONAL LIFE OF PHYSICAL EDUCATION TEACHER
Ana Paula X. Ladeira, Sônia C. Corrêa, Igor R. Dias, Elisabete dos S. Freire

ID463
DEVELOPMENT OF THE OVERARM THROWING MOTION FOR JAPANESE ELEMENTARY SCHOOL GIRLS
Yasuto Kobayashi, Michiyoshi Ae, Akiyo Miyazaki, Norihisa Fujii

ID416
AGE BASED MECHANICS OF MAXIMAL JUMP PERFORMANCE IN ENDURANCE ATHLETES
Ceri Diss, Marianne Gittoes, Richard Tong, David Kerwin

ID442
WHEN IS THE BACKWARD WALK STARTING AGE FOR CHILDREN?
Kohtaroh Hagio, Hiroh Yamanoto

ID427
INFLUENCE OF THE RANGE OF MOTION ON JUMPING HEIGHT IN CHILDHOOD
Pablo Floria, Andrew J. Harrison
01.07.2011 10:00
Room 1
Oral Session 20 (Miscellaneous)
Chairperson: Randall Jensen

ID 390
CENTRE OF MASS MOTION DURING THE PUNT KICK
Kevin Ball

ID586
KINEMATIC AND COORDINATION VARIABILITY OF THE THROWING ARM DURING THE WATER POLO SHOT
Paul Taylor, Raul Landeo, Jennifer Coogan

ID573
THE INFLUENCE OF EXPERIENCE ON KINETIC CHARACTERISTICS OF THE LOOPED LONGSWING
Genevieve Williams, Gareth Irwin, David G. Kerwin, Karl M. Newell

ID447
THE CHARTERISTICS OF LOWER LIMB MOMENTS IN BASEBALL PITCHING
Chen-Fu Huang, Chun-Lung Lin

ID446
EXAMINATION OF ACUTE WHOLE-BODY VIBRATION ON MAXIMAL VERTICAL JUMP HEIGHT IN COLLEGIATE VOLLEYBALL ATHLETES
Sarah Hilgers, Bryan Christensen

ID516
EFFECTS OF WHOLE BODY VIBRATION TRAINING ON KNEE EXTENSOR MUSCLE STRENGTH AND RATE OF FORCE DEVELOPMENT
Yu-Ju Kuo, Yu-Ming Lee, Kuo-Hui Cheng, Ching-Feng Cheng, Heng-Ju Lee

01.07.2011 10:00
Room 9
Oral Session 21 (Biomechanics of Individual Sports)
Chairperson: J. Xian Li

ID424
KINEMATICAL ANALYSIS OF FIVE DIFFERENT KICKS IN TAEKWONDO
Coral Falco, Isaac Estevan, Manfred Vieten

ID448
MECHANICAL ANALYSIS OF THE ROUNHOUSE KICK ACCORDING TO THE STANCE POSITION: A PILOT STUDY
Isaac Estevan, Coral Falco, Daniel Jandacka
ID524
KINEMATICAL ANALYSIS OF BANDAL AND DOLYO TAEKWONDO KICKS OF A HIGH LEVEL FEMALE ATHLETE
Jerusa P.R. Lara, Afonsa Janaina da Silva, Milton S. Misuta, Amanda P. Silvatti, Luciano A. Mercadante, Ricardo M. L. Barros

ID535
THE IMPACT OF DETRAINING ON PERFORMANCE AND SOME OF THE BIOMECHANICAL VARIABLES IN TAEKWONDO
Hashem A. Kilani, Waleed S. Nasser

ID559
KINEMATIC ANALYSIS OF THE SUPPORTING LEG BETWEEN DIFFERENT WEIGHT DIVISIONS IN THE ROUNDHOUSE KICK OF TAEKWONDO
Ying-Xun Wang, Shih-Yu Kuo, Ling-Hua Wang, Kuangyou B. Cheng

ID541
HOW TOUGH IS IT TO REPEATEDLY HIT THE BALL IN GOLF?
Gongbing Shan, Xiang Zhang

01.07.2011 11:30
Exhibition Hall
Coffee-break

01.07.2011 12:00
Exhibition Hall
Poster Sessions 11 to 13

Poster Session 11 (Biomechanical Instrumentation & Evaluation Methods)

P11.1 - ID488
CONSTRUCTION AND CALIBRATION OF A LOW-COST FORCE PLATE FOR HUMAN BALANCE EVALUATION
Raphaela Alvarenga, Flávia Porto, Ricardo Braga, Rebeca Cantreva, Gabriel Espinosa, Alex Itaborahy, Pedro Paulo Soares, Jonas Gurgel

P11.2 - ID 533
NEW SOFTWARE FOR THE IDENTIFICATION OF INDIVIDUALIZED RESPONSES TO PHYSICAL TESTS IN LARGE GROUPS OF SUBJECTS
Rafael Alkmin Reis, Denise Vaz de Macedo, René Brenzikofer

P11.3 - ID 538
RELATIVE ERROR ANALYSIS DURING REPRODUCTION OF ISOMETRIC FORCE OF KNEE EXTENSORS IN YOUNG ADULTS
Bruno M Espindola, Caroline Ruschel, Heiliane B Fontana, Daniela P dos Santos, Marcos A Noronha, Alessandro Haupenthal
P11.4 - ID 504
COMPARISON OF TWO METHODS TO CALCULATE PASSIVE MUSCLE STIFFNESS IN HUMAN
Gustavo H. C. Peixoto, Hans Joachim Menzel, Fabrício Anício Magalhães, Beatriz Magalhães Pereira, Antonio Eustáquio Melo Pertence, Ricardo Luiz Carneiro, Mauro Heleno Chagas

P11.5 - ID 547
A DYNAMOMETRIC METHOD FOR THE EVALUATION OF HIKING IN LASER BOATS
Gustavo R Schütz, Alessandro Haupenthal, Caroline Ruschel, Heiliane B Fontana, Marcel Hubert, Suzana M Pereira, Helio Roesler

P11.6 - ID 411
VALIDATION WITH VIDEOMETRY OF AN INTEGRATED SYSTEM TO ASSESS HORIZONTAL INTRA-CYCLIC VELOCITY WITH A MECHANICAL SPEEDOMETER
Tiago M Barbosa, Mário J Costa, Jorge E Morais, Sérgio Jesus, António J Silva, José Batista, José Gonçalves

P11.7 - ID 418
ASSESSING TENNIS PLAYER INTERACTIONS WITH TENNIS COURTS
Marcus Dunn, Simon Goodwill, Jon Wheat, Steve Haake

P11.8 - ID 456
WALKINSENSE VALIDATION: PRELIMINARY TESTS OF MOBILITY PARAMETERS
Marcelo Castro, Sofia Abreu, Isabel Fonseca, João Neiva, Miguel V. Correia, J. P. Vilas-Boas

P11.9 - ID 455
THE EFFECTS OF WEARING SPANDEX GARMENT WITH COMPRESSION BAND ON KINEMATIC VARIABLES DURING A GOLF SWING
Chang-soo Yang, Ho-youl Kang, Gye-san Lee, Young-tae Lim, Seong-jung Kim, Woen-sik Chae, Min-soo Kim, Dong-soo Kim, Nyeon-ju Kang

P11.10 - ID 468
EFFECT OF KINESIO TAPE ON PERFORMANCE IN COUNTER-MOVEMENT JUMP
Jakob Kümmel, Danica Mauz, Florian Blab, Manfred Vieten

Poster Session 12 (Biomechanics of Individual Sports)

P12.1 - ID 532
COMPARISON OF KINEMATIC CHARACTERISTICS BETWEEN STANDING AND ROTATIONAL DISCUS THROWS
Oleg Nemtsev

P12.2 - ID 258
EFFECT OF PERFORMANCE SPEED ON THE KINEMATICS AND KINETICS OF TWO TRUNK AND HIP STRENGTHENING EXERCISES
José L.L. Elvira, David Barbado, Belén Flores-Parodi, Francisco J. Vera-García
P12.3 - ID 296
A METHOD TO QUANITIFY MOVEMENT VARIABILITY OF HIGHLY SKILLED GOLFERS
PERFORMING DRIVER SWINGS
Catherine B. Tucker, Ross Anderson, Ian C. Kenny

P12.4 - ID 406
EFFECTS OF TRYING TO GAIN DISTANCE ON GOLF DRIVING TECHNIQUE
Steven J. Buzza, Gareth Irwin, Ian N. Bezodis, David G. Kerwin, Young-Hoo Kwon

P12.5 - ID 591
COMPARATIVE BIOMECHANICS ANALYSIS OF HURDLE CLEARANCE TECHNIQUES
Xi Li, Jihe Zhou, Ning li, Jing Wang

P12.6 - ID 499
COMPARISON OF PLAYER’S CENTER OF MASS MOVEMENT BETWEEN HIGH AND LOW
IMPACT POSITIONS IN TENNIS FOREHAND STROKE
Chih-Yu Lin, Kuo-Cheng Lo, Hwai-Ting Lin, Lin-Hwa Wang

P12.7 - ID 464
KINEMATICS OF FOOT-SHANK COMPLEX IN “KENDO” AND ITS RELATIONSHIP WITH FOOT
ARCH HEIGHT
Sentaro Koshida, Tadamitsu Matsuda, Kyohei Kawada

P12.8 - ID 565
STEP ADJUSTMENT IN LONG JUMP APPROACH IN BEGINNER ATHLETES AGED 12-13
Flora Panteli, Apostolos Theodorou, Athanasia Smirniotou

P12.9 - ID 423
ANALYSIS OF HALF-SQUAT MECHANICAL SPECIFICITY TO TRACK AND FIELD THROWING
TECHNIQUES
Henrique Coimbra, Mário Vaz, Nuno Ramos, Juvenal Fernandes, João Carvalho, Filipe
Conceição

P12.10 - ID 567
A BIOMECHANICAL STUDY OF THE TAKEOFF PREPARATION AND THE TAKEOFF MOTIONS IN
ELITE MALE LONG JUMPERS
Yutaka Shimizu, Michiyoshi Ae, Hiroyuki Koyama

Poster Session 13 (Biomechanics of Team Sports)

P13.1 - ID 18
THE EXAMINATION OF BALL FIELD PLACEMENT IN SLO-PITCH HITTING
Tom Wu, Pierre Gervais, Pierre Baudin, Marcel Bouffard
P13.2 - ID 413
COMPARISON OF TORSO TWIST BETWEEN SLAP HIT AND ORDINARY HIT IN SOFTBALL BATTING
Yi-Wen Chang, Hsiu-Mei Hsieh, Shien-Ming Yang, Feng-Yin Chen, Hua-Wei Lin, Hong-Wen Wu

P13.3 - ID 593
STUDY ON KNEE JOINT ISOKINETIC STRENGTH OF MALE VOLLEYBALL PLAYERS
WeiPing Shu, JiHe Zhou

P13.4 - ID 526
ASYMMETRIES BETWEEN LOWER LIMBS DURING JUMPING IN FEMALE ELITE ATHLETES FROM THE BRAZILIAN NATIONAL VOLLEYBALL TEAM
Raquel Castanharo, Maria Isabel Veras Orselli, Cristina Alcantara, Andréia Miana, Edison de Jesus Manoel, José Elias Proença, Marcos Duarte

P13.5 - ID 340
CENTRE OF MASS INTRACYCLIC VELOCITY VARIATION IN THREE VARIANTS OF THE FRONT CRAWL WATER POLO TECHNIQUE
Filipa Pereira, Pedro Figueiredo, Pedro Gonçalves, João Paulo Vilas-Boas, Ricardo J. Fernandes, Leandro Machado

P13.6 - ID 376
KINEANTROPOMETRIC PROFILE OF PORTUGUESE WATER POLO PLAYERS
Sofia Canossa, João F Martins, Pedro Figueiredo, Ricardo J Fernandes, Francisco M Argudo, Júlio M Garganta

P13.7 - ID 414
THROWING VELOCITY IN ELITE WATER POLO FROM DIFFERENT AREAS OF THE SWIMMING POOL
J. Arturo Abraldes, Carmen Ferragut, Nuria Rodríguez, Pedro E. Alcaraz, Helena Vila

P13.8 - ID 104
EFFECTS OF EXTERNAL LOADING ON POWER OUTPUT DURING VERTICAL JUMPS: A COMPARISON BETWEEN WATER POLO AND VOLLEYBALL PLAYERS
Sônia C. Corrêa, Ana Paula X. Ladeira, Rosangela G. Romano, Gilberto Guimarães

P13.9 - ID 560
THE ANALYSIS OF RACE PACING IN ELITE COMPETITIVE LONG-DISTANCE SPEED SKATING
Shunsuke Takenaka, Masahiro Yuki, Norihisa Fujii

P13.10 - ID 311
ANALYSIS OF SINGLE AND TEAM KAYAK ACCELERATION
Beatriz Gomes, Nuno Viriato, Ross Sanders, Filipe Conceição, Mário Vaz, João Paulo Vilas-Boas
01.07.2011 13:00  
Faculty Restaurant & Sports areas (Swimming pool)  
Lunch & Animated Sports Activities (Hydro-gymnastics)

01.07.2011 14:30  
Auditorium  
Conference 8  
2010 HG-NIA winner  
Anne Richter
SPECIFIC ISSUES OF VERTICAL JUMPS AS FUNDAMENTAL PERFORMANCE DIAGNOSTICS  
TOOLS  
THE HANS GROS NEW INVESTIGATOR AWARD FINALISTS 2011
Chairperson: Gareth Irwin

01.07.2011 16:15  
Exhibition Hall  
Coffee-break

01.07.2011 16:45  
Auditorium  
ISBS Annual General Meeting

01.07.2011 18:00  
Super Bock Lounge  
Happy-hour – Academic “Tuna Songs”

01.07.2011 19:00  
Bus Shuttle to Hotels

01.07.2011 20:00  
Bus Shuttle from Hotels to Closing Banquet

01.07.2011 21:00  
Closing Banquet – São Bento da Vitória Monastery

01.07.2011 24:00  
Bus Shuttle to Hotels