Podium Session: Strength & Conditioning
Chair: Laura-Anne Furlong

THE EFFECT OF SUB-MAXIMAL LOADS ON TRUNK POSTURE DURING THE CLEAN IN COMPETITIVE WEIGHTLIFTERS
Szilvia Kiraly, Staffordshire University, UK

THE PRE-EXHAUSTION METHOD SEEMS INEFFECTIVE TO INCREASE ELECTROMYOGRAPHIC ACTIVITY
Rafael A. Fujita, University of São Paulo, Brazil

RELIABILITY AND COMPARISON OF FORCE CHARACTERISTICS OF THE NORDIC HAMSTRING EXERCISE
Steven Ross, Edgehill University, UK

THE INFLUENCE OF DYNAMIC AND PLYOMETRIC EXERCISES ON KNEE JOINT MOTION FOR COUNTERMOVEMENT JUMP PERFORMANCE
Marco V. Campana Bonilla, Dongguan University of Technology, China

COMPARISON OF THE BILATERAL AND UNILATERAL BARBELL HIP THRUST
Jac Lloyd Palmer, Cardiff Metropolitan University, UK

DOES HIP CONTRACTURE EFFECT ANTERIOR PELVIC TILT CHANGES DURING SQUATTING?
Bryan Christensen, North Dakota State University, USA

PLANTARFLEXOR ELECTROMECHANICAL DELAY: INFLUENCE OF CONTRACTION TYPE AND MUSCLE-TENDON UNIT LENGTH
Evan Crotty, University of Limerick, Ireland

ADAPTATIONS IN TRICEPS SURAE MUSCLE-TENDON UNIT MECHANICAL PROPERTIES IN ELITE JUMPERS
Gaspar Epro, London South Bank University, UK
Podium Session: Injury & Rehabilitation
Chair: Helen Bayne

CHANGES IN LOWER EXTREMITY BIOMECHANICS DUE TO A BASKETBALL-SPECIFIC FATIGUE PROTOCOL
Peng Lu, Beijing Sport University, China

CASE STUDY OF AN ACCIDENTAL ANKLE TWIST: A KINEMATIC ANALYSIS USING FUNCTIONAL DATA ANALYSIS
Manuela Paulina Trejo Ramírez, Sheffield Hallam University, UK

BIOMECHANICAL ANALYSIS OF SCHWINGEN (SWISS WRESTLING) TO GAIN INSIGHTS INTO HEAD, NECK AND KNEE INJURY RISKS
Silvio Lorenzetti, Swiss Federal Institute of Sport, Switzerland

FALLING AS A STRATEGY TO DECREASE KNEE LOADING DURING LANDINGS
Boyi Dai, University of Wyoming, USA

EFFECT OF FATIGUE ON KNEE KINEMATICS AND KINETICS DURING SIDESTEP CUTTING AND SINGLE LEG LANDING IN FEMALE HANDBALL ATHLETES
Bruno Bedo, University of São Paulo, Brazil

LANDING ASYMMETRY IN BACK TUCKED SALTOS AND THE EFFECT OF TAKEOFF ASYMMETRY
Nicolas Hallgrimson, University of Saskatchewan, Canada

THE EFFECT OF AUTOGRAFT TYPE ON PROGRESSION OF PHASE-SPECIFIC LOADING ASYMMETRIES IN THE COUNTER-MOVEMENT JUMP FROM SIX TO NINE MONTHS POST-ACLR
Jill Costley, Sports Surgery Clinic, Ireland

WHOLE-BODY CHANGE OF DIRECTION TASK EXECUTION ASYMMETRIES AFTER ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION
Katherine Daniels, Sports Surgery Clinic, Ireland
Podium Session: Hitting & Kicking
Chair: Kevin Ball

ISOKINETIC STRENGTH PROFILE OF FEMALE SOCCER PLAYERS: BETWEEN LIMB COMPARISONS.
Paul A. Jones, University of Salford, UK

TIME-COURSE OF COUNTERMOVEMENT JUMP VARIABLES DURING RECOVERY FROM MATCH FATIGUE:
ANALYSIS OF AN INDIVIDUAL ATHLETE
Nicholas Linthorne & Antonia Gregoriou, Brunel University London, UK

CHOICE OF DATA PROCESSING INFLUENCES PRACTICAL INTERPRETATION OF KICK LEG JOINT KINETICS
DURING THE IMPACT PHASE OF BALL KICKING
Simon Augustus, University of Chichester, UK

RELATIONSHIPS BETWEEN WHOLE-BODY KINEMATICS AND BADMINTON JUMP SMASH RACKET HEAD
SPEED
Romanda Miller, University of East London, and Loughborough University, UK

KINEMATICS OF MEN STRIKING MOTION IN EIGHTH DAN KENDO PLAYERS
Naoki Murase, Chukyo University, Japan

BACKSWING LENGTH AND SWING PATH TENDENCIES FROM AMATEUR GOLFERS
Boris Bacic, Auckland University of Technology, New Zealand

THE EFFECT OF DELIVERY METHOD ON CRICKET BATTING UPPER-BODY KINEMATICS
Stuart A. McErlain-Naylor, University of Suffolk, UK

BIOMECHANICAL INVESTIGATION OF THE KIZAMI TSUKI IN KARATE ATHLETES
Riccardo Annibali & Valentina Camomilla, University of Rome, Italy

BIOMECHANICAL IMPLICATIONS OF THE BATTING BACKLIFT TECHNIQUE IN CRICKET: A COLLATION OF
CURRENT EVIDENCE
Habib Noorbhai, University of Johannesburg, South Africa

For more head to: @ISBSOFFICIAL
isbs.org
### Podium Session: Methods & Equipment

**Chair:** Mark Robinson

<table>
<thead>
<tr>
<th>Title</th>
<th>Author(s)</th>
<th>Institution(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A PRACTICAL OPEN-SOURCE COMPARISON OF DISCRETE AND CONTINUOUS BIOMECHANICAL ANALYSIS TECHNIQUES</td>
<td>Stuart A. McErlain-Naylor, University of Suffolk, UK</td>
<td></td>
</tr>
<tr>
<td>COMPARISON OF CONCENTRIC MOVEMENT VELOCITY WITH PUSH BAND 2.0 AND VICON MOTION CAPTURE DURING RESISTANCE EXERCISES</td>
<td>Edward Pelka, Miami University, USA</td>
<td></td>
</tr>
<tr>
<td>THE USE OF UPPER LIMB PROSTHESIS OPTIMIZES LONG JUMP APPROACH KINEMATICS: A CASE STUDY OF AN ELITE T47 ATHLETE</td>
<td>Apostolos Theodorou, National and Kapodistrian University of Athens, Greece</td>
<td></td>
</tr>
<tr>
<td>THE EFFECT OF STEP WIDTH CONTROL ON LOAD CARRIAGE ECONOMY</td>
<td>Sean Hudson, University of Huddersfield, UK</td>
<td></td>
</tr>
<tr>
<td>THE EFFECT OF MARKER PLACEMENT ERROR ON THE INTERPRETATION OF INTER-LIMB DIFFERENCES IN FRONTAL PLANE KNEE LOADING DURING A CHANGE OF DIRECTION TASK</td>
<td>Ciaran McFadden, University of Roehampton, UK</td>
<td></td>
</tr>
<tr>
<td>USING COMPUTER VISION AND DEEP LEARNING METHODS TO CAPTURE SKELETON PUSH START PERFORMANCE CHARACTERISTICS</td>
<td>Laurie Needham, University of Bath, UK</td>
<td></td>
</tr>
<tr>
<td>AUTOMATED MULTI-FEATURE SEGMENTATION OF TREADMILL RUNNING</td>
<td>Mathew Schwartz, New Jersey Institute of Technology, USA</td>
<td></td>
</tr>
<tr>
<td>COORDINATION VARIABILITY IN OVERGROUND RUNNING AND WALKING AT PREFERRED AND FIXED SPEEDS</td>
<td>Hannah Wyatt (Auckland University of Technology, New Zealand)</td>
<td></td>
</tr>
</tbody>
</table>
Podium Session:
Pedagogy & Skill Acquisition

Chair: ChengTu Hsieh

POSTURAL STABILITY AND ANTICIPATORY POSTURAL ADJUSTMENTS PERFORMANCES AFTER GENERAL MUSCLE FATIGUE IN TRAINED AND UNTRAINED ADULTS
Hui Lyu, Zhejiang University, Zhejiang University, China

VISUALISING THE EFFECT OF SAMPLE SIZE ON DESCRIPTIVE STATISTICS: WITH APPLICATION TO A COUNTERMOVEMENT JUMP TEST
Nick Linthorne, Brunel University London, UK

SPATIAL SPEED-ACCURACY TRADE-OFF IN INTERNATIONAL BADMINTON PLAYERS PERFORMING THE FOREHAND SMASH
Idrees A. Afzal, Loughborough University, UK

MOVEMENT VARIABILITY IN THE SPINAL KINEMATICS OF FAST BOWLERS
Corey Perrett, University of Otago, New Zealand

CHARACTERISTICS OF A WELL-DONE BREAKING PITCH IN BASEBALL
Hirotaka Nakashima, Chukyo University, Japan

THE CONTRIBUTION OF BODY CENTER OF MASS VELOCITY TO BASKETBALL BALL RELEASE VELOCITY ACROSS SHOT DISTANCES
Casey Wiens, University of Southern California, USA

BIOMECHANICAL STUDY ON DIFFERENT DIRECTIONS FOR RUNNING JUMPS FOCUSED ON THE TAKEOFF PREPARATION
Yuki Suzuki, Chukyo University, Japan

UNDERGRADUATE STUDENT EXPERIENCES OF PUBLISHING BIOMECHANICS RESEARCH
Stuart A. McErlain-Naylor, University of Suffolk, UK

TRANSVERSE PLANE HEAD-TRUNK COORDINATION DURING ANTICIPATED AND UNANTICIPATED SIDESTEPPING TASKS
Sam R. Zeff, University of Massachusetts Amherst, USA
Podium Session: Athletics & Swimming
Chair: Shinji Sakurai

ANY OLYMPIC JUMP THAT WOMEN CAN DO, MEN CAN DO NEARLY 20% BETTER
Emily McClelland, Southern Methodist University, USA

HYDRODYNAMIC RE-EXAMINATION OF UNDERWATER NON-PROPULSIVE PHASE IN FRONT CRAWL
Daiki Koga, University of Tsukuba, Japan

STRENGTH-VELOCITY RELATIONSHIP OF RESISTED SWIMMING: A REGRESSION ANALYSIS
Francisco Cuenca-Fernández, University of Granada, Spain

CONTRIBUTION OF NEW START INFORMATION SYSTEM PROTOTYPE TO THE FALSE START DETECTION IN ATHLETICS
Matthieu Milloz, University of Limerick, Ireland

INTER-LIMB COORDINATION DURING SPRINT ACCELERATION
Helen Bayne, University of Pretoria, South Africa

THE EFFECT OF POLO DRILL SWIMMING ON FREESTYLE KINEMATICS: A PILOT STUDY
Victoria Brackley, Victoria University, Australia

DIFFERENCES IN REACTION FORCE-TIME CHARACTERISTICS EXPERIENCED BY FEMALES WHEN RUNNING ON A TRACK AT DIFFERENT SPEEDS
Harper E. Stewart, University of Southern California, USA

THE RELATIONSHIP BETWEEN TRUNK KINEMATIC VARIABLES AND UNDERWATER UNDULATORY SWIMMING PERFORMANCE IN COMPETITIVE SWIMMERS
Takahiro Tanaka, Ritsumeikan University, Japan

MULTI-SEGMENT CONTRIBUTIONS TO INDUCED BALL VELOCITY IN COLLEGIATE BASEBALL PITCHERS
Arnel Aguinaldo, Point Loma Nazarene University, USA

DYNAMICS OF HANDSTAND BALANCE
Hannah Wyatt, Auckland University of Technology, New Zealand

For more head to: @ISBSOFFICIAL isbs.org

ISBS 2020
ONLINE ACTIVITIES

ISBS Sponsor: VICON

For more head to: https://bit.ly/ISBSYouTube

ISBS 2020
ONLINE ACTIVITIES

ISBS Sponsor: VICON
Poster Session: Motor Control & Rehabilitation
Chair: Liz Bradshaw

MOTOR ENTROPY INFLUENCE ON SPORT RESULTS: USAIN BOLT’S RECORD-BREAKING RACE EXAMPLE
Andrey Pomerantsev, Lipetsk State Pedagogical University, Russia

A NOVEL METHOD FOR COMPARING VECTOR CODING PROFILES
Adam Brazil, University of Bath, UK

THE EFFECT OF ANTICIPATION ON PENULTIMATE STEP STANCE PHASE KINEMATICS IN A RUNNING CHANGE OF DIRECTION MANOEUVRE
Katherine Daniels, Sports Surgery Clinic, Ireland

STEP WIDTH, GLUTEUS MEDIUS ACTIVATION AND POSTURAL SWAY RESPONSES TO A NOVEL GAIT TREATMENT: A PILOT STUDY
Maddison Misiak, Northern Michigan University, USA
Poster Session: Mixed Topics
Chair: Marcus Lee

CLASSIFICATION OF FOUR DELIVERY STYLES OF PITCHING MOTION IN YOUNG BASEBALL PLAYERS
Tomohisa Miyanishi, Sendai University, Japan

STUDENTS’ PERCEPTION ON TEACHING STYLE AND LEARNING OUTCOME
ChengTu Hsieh, California State University, USA

THE BALL ORIENTATIONS USED BY PLACE KICKERS AT THE 2019 RUGBY WORLD CUP AND THEIR ASSOCIATIONS WITH KICK SUCCESS
Sam Jones, Swansea University, UK

EFFECTS OF MAXIMAL STRENGTH ON GROUND REACTION FORCE PATTERNS DURING COUNTERMOVEMENT JUMPS
Michael H. Haischer, Marquette University, USA

RELIABILITY OF A NOVEL PRINTED PIEZORESISTIVE PRESSURE SENSOR
Louise Burnie, Swansea University, UK
Poster Session: Athletics
Chair: Steffi Colyer

**HOW HITTING THE HURDLE AFFECTS PERFORMANCE IN THE 110M HURDLES**
Ryo Iwasaki, Tokyo Gakugei University, Japan

**THE EFFECT OF VISUAL GAZE LOCATION ON BLOCK-START BIOMECHANICS IN ATHLETICS**
Mitsuo Otsuka & Marcus Lee, Singapore Sport Institute, Singapore

**AN ANALYSIS OF THE THROWING TECHNIQUE OF COLLEGE MALE JAVELIN THROWERS IN A COMPETITION**
Mizuki Makino, Nippon Sport Science University, Japan

**PROSTHETIC LEG DESIGN, FORCE PRODUCTION, AND CURVE SPRINT PERFORMANCE: A PILOT STUDY**
Ryan S. Alcantara, University of Colorado, USA