

**5th September 2018 - Spinal and Musculoskeletal Biomechanics**

<b>8:00-9:00</b>	Registration	The entrance to the A-11 building, Mechanical Engineering Department, Szafrana 4 Street, Zielona Gora)	
<b>9:00-9:45</b>	Opening Ceremony	Main Auditorium, University of Zielona Gora	
<b>9:45-10:25</b>	<b>Plenary Lecture</b> (Main Auditorium)	<b>Stephen Ferguson</b>	<i>Non-linear dynamics of the intervertebral disc: Implications for spinal health</i>
<b>10:25-10:30</b>	PHOTO	(Bldg. A-10, Registration Desk)	
<b>10:30-11:00</b>	Coffee Break	(Bldg. A-10, Main Hall, Part A)	
	Session (Bldg. A-10, Aud. H044)	Spine and Clinical Biomechanics	Chairmans: Stephen Ferguson Marek Langner
<b>11:00-11:25</b>	<b>KEYNOTE</b>	<b>Agnieszka Tomaszewska</b>	Towards understanding of mechanics of hernia managed by synthetic mesh in laparoscopic operation. A single case study.
<b>11:25-11:40</b>		Bartosz Martyniuk	Influence of implants and distraction rods configuration on forces in distraction rods and stiffness of Ilizarov fixator
<b>11:40-11:55</b>		Katarzyna Szepietowska	Influence of imperfections in placement of fasteners in laparoscopic ventral hernia repair
<b>11:55-12:10</b>		Yan Zhang	Metatarsal stress distribution and joint contact pressure of hallux valgus: A finite element analysis
<b>12:10-12:25</b>		Piotr Tabor	Spatial configuration of spine among physiotherapy students
	Session (Bldg. A-2, Aud. 102)	Impact/Injury Biomechanics	Chairmans: Jerzy Małachowski Alicja Rutkowska-Kucharska
<b>11:00-11:25</b>	<b>KEYNOTE</b>	<b>Ricardo Alves de Sousa</b>	Head injury evaluation using the YEAHM finite element head model
<b>11:25-11:40</b>		Grzegorz Sławiński	Numerical analysis of the biomechanical factors of a soldier inside a vehicle with the pulse load resulting from a side explosion
<b>11:40-11:55</b>		Mariusz Ptak	Numerical simulation of a cyclist skull

			injury during a traffic accident
<b>11:55-12:10</b>		Tomasz Klekiel	Prediction of the segmental pelvic ring fractures under impact loadings during car crash
<b>12:10-12:25</b>		Dominik Jastrzębski	Lateral and oblique rib bending – single rib kinematic analysis using THUMS thorax model
	Session (Bldg. A-2, Aud. 302)	Spine and Rehabilitation Biomechanics	Chairmans: Natalya Kizilova Andrzej Maciejczak
<b>11:00-11:25</b>	<b>KEYNOTE</b>	<b>Marek Gzik</b>	Virtual reality technology in rehabilitation and sport
<b>11:25-11:40</b>		Oskar Sachenkov	Automatic processing and analysis of the quality healing of derma injury
<b>11:40-11:55</b>		Adam Ciszewicz	Comparison of methods for computing a target point for aspirations and biopsies
<b>11:55-12:10</b>		Marek Jasiński	Numerical analysis of soft tissue thermal injury process caused by laser impulse
<b>12:10-12:25</b>		Małgorzata Syczewska	Can Movement Analysis Profile (MAP) and Gait Profile Score (GPS) differentiate hemiplegic and diplegic patients?
<b>12:25-12:40</b>		Zoi Koutkalaki	Parametric finite element analysis for the evaluation of the effect of osteoporosis on the mechanical behavior of foot
<b>12:40-13:30</b>	Lunch	(Bldg. A-10, Main Hall, Part A)	
<b>13:30-14:15</b>	<b>Plenary Lecture</b> (Bldg. A-10, Aud. H044)	<b>Andrzej Maciejczak</b>	<i>Spinal biomechanics of normal spine, instrumented spinal fusion, and sagittal imbalance</i>
	Session (Bldg. A-10, Aud. H044)	Session Sponsorship	
<b>14:15-14:45</b>	MTS Systems GmbH	Andrej Mahr	Advances in biomechanical testing
<b>14:45-15:00</b>	Lenso Sp. z o.o.	Marcin Kneć	Application of ARAMIS system for live tracking and measurement of human

			body movement
<b>15:00-15:30</b>	Coffee Break	(Bldg. A-10, Main Hall, Part A)	
<b>15:30-16:30</b>	Young Session (Bldg. A-10, Aud. H044)	The Morecki & Fidelus Competition	
	Marta Kozuń	Influence of arteriosclerosis on the structural and mechanical properties of blood vessel walls	
	Artur Struzik	Estimation of potential elastic energy during the countermovement phase of a vertical jump based on the force-displacement curve	
	Katarzyna Szepietowska	Sensitivity analysis based on non-intrusive regression-based polynomial chaos expansion for surgical mesh modelling	
	Paulina Szyszka	Variability range of selected biomechanical parameters of the snatch lift in elite female weightlifters	
<b>16:30-17:30</b>	<i>Polish Society of Biomechanics– General Meeting</i>	(Bldg. A-10, Aud. H044)	
<b>17:30-18:30</b>	<i>LENSO workshop</i> (Bldg. A-10, Aud. H044)	Marcin Kneć	Free GOM Correlate - Basic training for optical measurement in medicine
<b>20:00-24:00</b>	Gala Dinner	Palm House in Zielona Góra	