May 30 and 31, 2024

30th French-Polish Seminar of Mechanics

organized by

LAMPS

LAboratory of Pluridisciplinary Modelling and Simulations
of
University of Perpignan Via Domitia

CONFERENCE PROGRAM

Thursday, May 30

10:00 - 10:30 Registration

10:30 - 11:00 Opening Ceremony

Chairperson : C. Bajer

11:00 - 11:40 Meir Shillor,
The new Damped Normal Compliance (DNC) contact condition (keynote lecture)

11:40 - 12:20 Hanna Piotrzkowska-Wróblewska,
Mathematical model of breast cancer based on mechanical and biological properties of tissues developed for computeraided personalized neoadjuvant therapy (keynote lecture)

Chairperson : I. Lubowiecka

14:00 - 14:40 Paweł Kłosowski,
Hanging roof - theoretical and constructional problems (keynote lecture)

14:40 - 15:20 Éric Florentin,
Approximations and associated quality of mechanical stochastic problems (keynote lecture)

Chairperson : M. Shillor

15:40 - 16:00 Cédric Flageul,
Large Eddy simulation of a turbulent round impinging jet with conjugate heat transfer

16:00 - 16:20 Jacek Mateusz Bajkowski,
Exploring the performance of a composite microsphere-modified magneto-rheological fluid

16:20 - 16:40 Zhizhuo Zhang,
Multi-layer elastic contact system and its finite element agorithm design.

Chairperson : S. Abide

17:00 - 17:20 Izabela Lubowiecka,
On some mechanical aspects of abdominal hernia repair

17:20 - 17:40 Szymon Kalinowski,
Topological optimisation of simplified hernia implant with particle swarm method

17:40 - 18:00 Cundi Han,
A Fourier term and Bernstein polynomial collocation method for nonlinear fractional order partial differential equations

18:00 - 18:20 Kamil Sybilski,
Analysis of the effect of straight arch technique parameters on loads in the periodontium

Friday, May 31

Chairperson : E. Florentin

9:40 - 10:20 Frank Jourdan,
Study of the mechanical and functional behaviour of stents (keynote lecture)

10:20 - 11:00 Fei Wang,
Randomized neural network methods for solving mechanics problems (keynote lecture)

Chairperson : F. Bonaldi

11:20 - 12:00 Robert Sauer,
A rotation-free finite element formulation for anisotropic elastoplasticity of textiles and fiber-embedded composites (keynote lecture)

12:00 - 12:20 Vo Anh Thuong Nguyen,
An improved normal compliance method for non-smooth contact dynamics

Chairperson : P. Kłosowski

14:00 - 14:40 Francesco Bonaldi,
An energy-consistent discretization of hyper-viscoelastic contact models for soft tissues (keynote lecture)

14:40 - 15:00 Mélanie Dreina,
Analysing discrete and continuous spectrum and dimension reduction for thermal fields

15:00 - 15:20 Mélanie Dreina,
DNS of turbulent natural convection flows in a differentially heated cavity with conjugate heat transfer

15:20 - 15:30 Closing Ceremony