

UMEMA

PROGRAM

Monday, 10 December 2018**9:30 - 10:00 Registration****10:00 - 10:15 Opening****10:15 - 11:00 SVM and LS-SVM for the Uncertainty Quantification of Complex Systems**

[KEYNOTE]

R. Trinchero¹, M. Larbi², H. M. Torun², M. Swaminathan², F. G. Canavero¹¹*Department of Electronics and Telecommunications, Politecnico di Torino, Torino, Italy*²*School of Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, USA***11:00 - 11:30 Coffee break****11:30 - 12:00 Investigation of Shielding Effectiveness of Cables using Stochastic Methods**M. Hagel¹, M. Stiemer¹, and F. Gronwald²¹*Helmut Schmidt University, Hamburg, Germany*²*University of Siegen, Siegen, Germany***12:00 - 12:30 Stochastic Modelling of Nanofluid Heat Transfer**J. Ravnik¹, A. Šušnjara², J. Tibaut¹, D. Poljak², M. Cvetković²¹*University of Maribor, Faculty of mechanical engineering, Slovenia*²*University of Split, FESB, Croatia***12:30 - 14:15 LUNCH****14:15 - 15:00 Influence of Both Statistical Distributions and Shape Inclusions for Microwave**

[KEYNOTE]

Assessment of Composite MaterialsS. Lalléchère¹, M. Liu¹, S. Girard¹, P. Bonnet¹, F. Paladian¹¹*Universite Clermont Auvergne, Institut Pascal, France***15:00 - 15:30 On the Stability of the Newton Formula in Multivariate Hierarchical Polynomial Interpolation**Abdellah Chkifa¹¹*Muhamed VI Polytechnic University, Ben Guerir, Morocco***15:30 - 16:00 Coffee break****16:00 - 17:00 Poster session****20:00 Workshop Dinner**

Posters:**P-1 Propagation of Current Waves Along Transmission Lines with Stochastic Geometry in a Rectangular Resonator**

S. V.Tkachenko¹, J. Nitsch¹, M. Raya¹, R. Vick¹, S. Šesnić², D. Poljak²

¹*Otto-von-Guericke University Magdeburg, Germany,*

²*University of Split, Croatia*

P-2 Probability Distributions of Transient Currents Induced Along Thin Wire Buried in a Lossy Material

S. Lalléchère¹, S. Šesnić², D. Poljak², A. Šušnjara², S. Girard¹, F. Paladian¹, P. Bonnet¹, K. El Khamlichi Drissi¹

¹*UCA, Institut Pascal, France*

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P-3 Analysis of the Transient Impedance of the Horizontal Grounding Electrode Using Stochastic Collocation Technique

S. Šesnić¹, A. Šušnjara¹, S. Lalléchère², D. Poljak¹, K. El Khamlichi Drissi², P. Bonnet², F. Paladian²

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P-4 Uncertainty Quantification and Comparison for Different Models of Mortality Rates

K. Lundengård¹, S. Suleiman¹, M. Rančić¹, S. Silvestrov¹

¹*Department of Mathematics/Applied Mathematics, UKK, Mälardalen University, Västerås, Sweden*

P-5 A Note on Stochastic Collocation Applied in Dosimetry, Magneto-Hydrodynamics and Ground Penetrating Radar Simulations

A. Šušnjara¹, D. Poljak¹, M. Cvetković¹, H. Dodig², S. Lallechere³, K. El Khamlichi Drissi³

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Tuesday, 11 December 2018**10:15 - 11:00 [KEYNOTE] Use of Artificial Intelligence to Model Exposure to Radio-Frequency Electromagnetic Fields Based on Sensor Network Measurements**S. Aerts¹, Y. Huang², L. Martens¹, W. Joseph¹, J. Wiart²¹INTEC-WAVES, Ghent University, Ghent, Belgium²Télécom ParisTech, Paris, France**11:00 - 11:30 Coffee break****11:30 - 12:00 Random Processes Metamodeling Using Karhunen-Loève Expansion - Application to Dosimetry**S. Azzi¹, B. Sudret², J. Wiart¹¹Télécom ParisTech, Université Paris Saclay, France²ETH Zürich, Switzerland**12:00 - 12:30 Statistical Analysis of Indoor Human Exposure by a WLAN Source Based on Polynomial Chaos Expansions**Z. Liu¹, D. Lesselier², J. Wiart¹¹Télécom ParisTech, Université Paris-Saclay, France²CNRS-CentraleSupélec-Université Paris-Sud, Université Paris-Saclay, France**12:30 - 14:30 LUNCH****14:30 - 15:15 [KEYNOTE] Innovative 3D Stochastic Modelling of Electric Fields in Children Brain Exposed to 50 Hz Magnetic Fields**M. Bonato¹, E. Chiaramello¹, S. Fiochi¹, M. Parazzini¹, G. Tognola¹, L. Le Brusquet², P. Ravazzani¹¹Istituto di Elettronica e di Ingegneria dell'Informazione e delle Telecomunicazioni CNR, Milano, Italy²Laboratoire des Signaux et Systèmes (L2S), CentraleSupélec, CNRS, Univ. Paris-Sud, Université Paris-Saclay, Gif-sur-Yvette, France**15:15 - 15:30 Round table****Discussion on next meeting****CLOSURE**