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UNIVERSITÀ DEGLI STUDI DI NAPOLI
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SCUOLA POLITECNICA E DELLE
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 **DIE** **UNIVERSITÀ** DEGLI STUDI DI
TI. NA **NAPOLI** **FEDERICO II**
DIPARTIMENTO DI INGEGNERIA ELETTRICA
E DELLE TECNOLOGIE DELL'INFORMAZIONE



Dipartimento di
Matematica e
Applicazioni
"Renato
Caccioppoli"

International Workshop on Mathematical Modeling for Science and Engineering



P.le Vincenzo Tecchio, 80 Naples - Italy

Scipione Bobbio Room,

September 11-13th, 2019

Program

Wednesday 11/09/2019

- 9:00 Inauguration:** G. Manfredi, Rector Federico II
P. Salatino, President SPSB
G. Ventre, Director DIETI
L. Lomonaco, v-Director DMA
- 10:00** S. Verdù Rényi's Information Measures
- 10:40** G. Buttazzo Relaxed costs and quantization effects in Density Functional Theory
- 11:20** **COFFEE-BREAK**
- 11:40** A. Barbersin Huawei Presentation
- 12:10** **POSTER SESSION**
- 13:00** **LUNCH**
- 14:40** J. C. Belfiore From Deep Perceptual Learning to Deep Reasoning: A compositional perspective
- 15:20** A. Guillén Generalized Gilbert Varshamov Codes
- 16:00** **COFFEE-BREAK**
- 16:20** R. Muller Equivalent scalar models for many-dimensional random channels
- 17:00** G. Caire Coded Caching: Basic Schemes, Fundamental Limits, and Practical Implementation

Program

Thursday 12/09/2019

- 9:00** S. Terracini Spiralling and other solutions in limiting profiles of competition-diffusion systems
- 9:40** L. Dienen New Examples on the Lavrientiev Gap Using Fractals
- 10:20** **COFFEE-BREAK**
- 10:40** A. Zarnescu A dynamical perspective on the defect formation in the Beris-Edwards equations of nematic liquid crystals
- 11:20** M. Cicalese Chirality transitions in magnetic materials
- 12:00** E. Crooks Travelling waves in anisotropic smectic C* liquid crystals
- 12:40** **LUNCH**
- 14:00** **ROUND TABLE: Mathematical Models for Real System Design**
- 15:00** J. Miguez Recursive algorithms for Bayesian inference in Markov state space models
- 15:40** M. Fernandez Gridless parameter extraction using atomic norm
- 16:20** **COFFEE-BREAK**
- 16:40** M. Migliore Brain-inspired cognitive architectures using large-scale realistic computational models
- 17:20** M. Garrione Structures with intermediate piers: functional setting and stability analysis

Program

Friday 13/09/2019

- 9:00** C. Cecati Modulation of multilevel converters based on analytical methods
- 9:40** D. Ambrosi The Mechanics of Cell Migration
- 10:20** **COFFEE-BREAK**
- 10:40** D. Riccio Mathematical Modeling in Electromagnetics: from Science to Engineering
- 11:20** C. Nitsch Shape optimization in optimal insulation.
- 12:00** **ROUND TABLE: Topics of outstanding interest on the border between Science and Engineering**
- 13:00** **CLOSING REMARKS**

The Workshop is organized within the

Colloquium
in
Mathematical Engineering

