



The 3rd International Conference and Summer School Numerical Computations: Theory and Algorithms NUMTA2019

dedicated to the 80th birthday of Professor Roman G. Strongin

in cooperation with

siam

Society for Industrial and Applied Mathematics, USA

organized by

Department of Computer Engineering, Modelling,
Electronics and Systems Science (DIMES)
University of Calabria

Chairman

Yaroslav Sergeyev, Rende, Italy

Plenary Lectures and Tutorials

Louis D'Alotto, New York, USA

Infinite games on finite graphs using Grossone

Renato De Leone, Camerino, Italy

*Recent advances on the use of Grossone in optimization
and regularization problems*

Kalyanmoy Deb, East Lansing, USA

Karush-Kuhn-Tucker proximity measure for convergence of real-parameter single and multi-criterion optimization

Luca Formaggia, Milan, Italy

Numerical modeling of flow in fractured porous media and fault reactivation

Jan Hesthaven, Lausanne, Switzerland

Precision algorithms

Francesca Mazzia, Bari, Italy

Numerical differentiation on the Infinity Computer and applications for solving ODEs and approximating functions

Michael Vrahatis, Patras, Greece

Generalizations of the intermediate value theorem for approximations of fixed points and zeroes of continuous functions

Anatoly Zhigljavsky, Cardiff, UK

Uniformly distributed sequences and space-filling

Roberto Natalini, Rome, Italy

Vector kinetic approximations to fluid-dynamics equations

Yaroslav Sergeyev, Rende, Italy

Grossone-based Infinity Computing with numerical infinities and infinitesimals

Vassili Toropov, London, UK

Design optimization techniques for industrial applications: Challenges and progress

Organizing Committee

Francesco Dell'Accio, Rende, Italy

(SIAM representative)

Alfredo Garro, Rende, Italy

Vladimir Grishagin, Nizhni Novgorod, Russia

Dmitri Kvasov, Rende, Italy (Chairman)

Marat Mukhametzhano, Rende, Italy

Maria Chiara Nasso, Rende, Italy

Clara Pizzuti, Rende, Italy

Davide Rizza, Norwich, UK

Yaroslav Sergeyev, Rende, Italy



Le Castella di Isola Capo Rizzuto (KR)
Calabria, Italy

June 15-21, 2019