MASTER PROGRAM

for

FIFTEENTH INTERNATIONAL HYBRID CONFERENCE
APPLICATION OF MATHEMATICS IN TECHNICAL AND NATURAL SCIENCES
JUNE 21-26, 2023

All times in the program are GMT+3 (East-European time). Please synchronize your local time with respect to GMT and join the announced Zoom sessions on time.

WEDNESDAY, JUNE 21, 2023

FLAMINGO GRAND HALL

Join Zoom Meeting 08:00-12:30
https://us02web.zoom.us/j/81052014537?pwd=SjNZc0RYVlhiQUh5Q05wbjNrVEJ6UT09

Meeting ID: 810 5201 4537
Passcode: 401912

Hosted by Michail Todorov

08:30-09:00	OPENING SESSION
09:00-10:00	PLENARY LECTURE: Daniel Danchev Title: *Analytical and Numerical Results on Fluctuation-Induced Casimir and Helmholtz Forces*

10:00-10:30 BREAK

10:30-11:30	PLENARY LECTURE: Shou-Fu Tian

Title: *Soliton Resolution for the Complex Short Pulse Equation with Weighted Sobolev Initial Data in Space-Time Solitonic Regions*

11:30-12:30   Parallel Session NUMERICAL METHODS

Hosted by Michail Todorov and Daniel Danchev

11:30-12:00   Speaker: Alexey Rukavishnikov
Title: *On a Numerical Method for Solving a Non-Stationary Problem of Hydrodynamics with an Angular Singularity*

12:00-12:30   Speaker: Alex Fedoseyev
Title: *Approximate Analytical Solution for Turbulent Flow in Channels*

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Lunch Break

Join Zoom Meeting <mark>13:45-18:00</mark>
https://us02web.zoom.us/j/88550468635?pwd=d0VHZlBoUDE4NGhaL2NwSGdUbTd0dz09

Meeting ID: 885 5046 8635
Passcode: 204833

Hosted by Michail Todorov

14:00-16:00   Session NUMERICAL METHODS

14:00-14:30   Speaker: Miglena Koleva
Title: *Reconstruction of the Time-Dependent Right-Hand Side in Parabolic Equations on Disjoint Intervals*

14:30-15:00   Speaker: Luben Vulkov
Title: *Numerical Reconstruction of the Mortality Rate of the Forager Bees in a Spatial Model of Pesticide Free*

15:00-15:30	Speaker: Valerii Dryuma
	Title: *On the 14D Riemann Metric Associated with Navier-Stokes Equations and Its Applications*
15:30-16:00	Speaker: Byulent Idirizov
	Title: *Predictive Modelling and Time Series Analysis of FAO Food Price Index*

Break

16:30-18:00	Session NUMERICAL METHODS
16:30-17:00	Speaker: Rodrigo Vejar
	Title: *Finite Difference Scheme for a Higher Order Nonlinear Schrödinger Equation with Periodic Boundary Conditions*
17:00-17:30	Speaker: Alex Fedoseyev
	Title: *Radiation Effect Model for Ultrathin Silicon Solar Cells*
17:30-18:00	Speaker: Muhhamad Siddiqui
	Title: *Euler Elastic Model & Its Treatment*

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20:00	WELCOME PARTY – BAILANDO BAR, FLAMINGO GRAND HOTEL

CORELA HALL: Parallel Zoom Session

Join Morning 2 Zoom Meeting <mark>11:30-12:30</mark>
https://essex-university.zoom.us/j/92040184669

Meeting ID: 920 4018 4669

Hosted by Georgi Grahovski and Shou-Fu Tian

11:30-12:30	Special Session ALGEBRAIC AND GEOMETRIC ASPECTS OF INTEGRABLE SYSTEMS

11:30-12:00   Speaker: Jin-Jie Yang
Title: *Riemann-Hilbert Problem for the Focusing Nonlinear Schrödinger Equation with Multiple High-Order Poles under Nonzero Boundary Conditions*

12:00-12:30   Speaker: Zhi Quang Li
Title: *Inverse Scattering Transform and Soliton Solutions for the Modified Matrix Korteweg-de Vries Equation with Nonzero Boundary Conditions*

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Lunch Break

Join Afternoon 1 Zoom Meeting <mark>15:30-16:00</mark>
https://essex-university.zoom.us/j/95733750048

Meeting ID: 957 3375 0048

Hosted by Georgi Grahovski and Vesselin Vachev

15:30-16:00   Special Session ALGEBRAIC AND GEOMETRIC ASPECTS OF INTEGRABLE SYSTEMS

15:30-16:00   Speaker: Enrique Reyes
Title: *The Kadomtsev-Petviashvili Hierarchy on Equation Manifolds*

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20:00   WELCOME PARTY – BAILANDO BAR, FLAMINGO
                                 GRAND HOTEL