Open Communications in Nonlinear Mathematical Physics

The Programme at the Häckers Grand Hotel

Sunday June 23: Arrival Day

18:00 – 20:00 **Registration**

Monday June 24:

08:00 – 09:30 **Additional Registration Time**

Opening

09:45 – 10:00 **Norbert Euler** *Some words of welcome*

Morning Session Chairperson: Norbert Euler

10:00 – 10:35 **Sandra Carillo** *Bäcklund transformations in Abelian and non-Abelian nonlinear evolution equations*

10:35 – 11:10 **Rafael Hernández Heredero** *Formal diagonalisation of integrable systems of evolution equations*

Coffee Break 11:10 – 11:50

| 11:50 – 12:25 | **Henrik Aratyn** | *Orbit method for obtaining rational special function solutions of Painlevé V Hamilton equations* |
| 12:25 – 13:00 | **Robert Conte** | *Common solutions to two Bianchi IX systems* |

Lunch Break   13:00– 14:30

Afternoon Session   **Chairperson: Frank Nijhoff**

14:30 – 15:05	**Kenji Kajiwara**	*Generation of Aesthetic Shapes by Integrable Differential Geometry*
15:05 – 15:40	**Jarmo Hietarinta**	*Solutions to the constant Yang-Baxter equation: additive charge conservation in three dimensions*
15:40 – 16:15	**Giorgio Gubbiotti**	*On a chain of Lie-Poisson coalgebras and their invariants*

Welcome Reception: 16:15 – 17:30

Evening Session: **Chairperson: Norbert Euler**

An Evening of Science and Philosophy: 19:00 – 20:00

| 19:00 – 19:15 | **Oliver Krügel (Mayor)** | *Words of welcome* |
| 19:15 – 20:00 | **Adrian Constantin** | *Geophysical flows and waves* |

Tuesday June 25:

Morning Session   **Chairperson: Kenji Kajiwara**

09:00 – 9:45	**Frank Nijhoff**	*Lagrangian multiform structure of discrete, semi-discrete and "generating" PDE type KP systems*
09:45 – 10:20	**Derchyi Wu**	*Stability of KdV n-solitons*
10:20 – 10:55	**Błażej Szablikowski**	*Non-autonomous deformations of integrable soliton hierarchies*

Coffee Break   10:55 – 11:35

| 11:35 – 12:10 | **Thomas Wolf** | *About Integrable Evolution Equations with Lax Pairs over the Octonions* |
| 12:10 – 12:45 | **Colin Rogers** | *On Korteweg-de Vries and reciprocal moving boundary problems* |

Lunch Break   12:45– 14:15

Afternoon Session   **Chairperson: Wolfgang K. Schief**

14:15 – 15:00   **Arthemy Kiselev**   *The (non)triviality problem for Kontsevich's deformations of Nambu–Poisson brackets*

15:00 – 15:35   **Jose F. Gomes**   *Integrable hierarchies, soliton solutions and infinite dimensional algebras*

15:35 – 16:10   **Masashi Hamanaka**   *Solitons in 4d Wess-Zumino-Witten models – Towards unification of integrable systems*

Coffee Break   16:10 – 16:50

16:50 – 17:25   **Maria L. Gandarias**   *Symmetry multi-reduction for PDEs with invariant conservation laws*

17:25 – 18:00   **Jen-Hsu Chang**   *Totally non-negative Pfaffian for solitons in BKP equation*

Social Dinner   19:30 – 22:00   **Lahnterrasse: Ristorante & Pizzeria** (Wilhelmsallee 11, Bad Ems)

Wednesday June 26:

Morning Session

Discussions and Collaborations

11:00 – 12:30   **ISNMP Meeting** (members only)

Lunch Break   13:00– 14:30

Excursion

14:30   Bus departures from Bad Ems Main Train Station.

15:00   Bus arrives at *Deutsches Eck* in Koblenz.

15:30 – 17:00   English Guided Tour of the Koblenz Old Town (*Altstadt*)

17:00   Guided Tour ends at *Deutsches Eck*

17:00 – 19:00   Your free time in Koblenz

19:00   Bus departures from *Deutsches Eck*

19:30   Bus arrives in Bad Ems: end of excursion

Thursday June 27:

Morning Session   Chairperson: Sandra Carillo

09:00 – 9:45   **Da-jun Zhang**   *Elliptic solitons and related problems*

09:45 – 10:20   **Ralph Willox**   *Singularities and growth of higher order discrete equations*

10:20 – 10:55   **Irina Bobrova**   *Affine Weyl groups and non-abelian discrete systems*

Coffee Break   10:55 – 11:35

11:35 – 12:20   **Wolfgang K. Schief**   *The differential geometry of the multi-dimensionally consistent TED equation*

12:20 – 13:00   **Roman Kozlov**   *Lagrangian formalism and Noether-type theorems for second-order delay ordinary differential equations*

Lunch Break   13:00– 14:30

Afternoon Session   Chairperson: Da-Jun Zhang

14:30 – 15:15   **Krzysztof Marciniak**   *Algebraic curves as a source of separable multi-Hamiltonian systems*

15:15 – 15:50   **Maciej Błaszak**   *From Stäckel systems to Painlevé hierarchies*

15:50 – 16:25   **Anouchah Latifi**   *Wind-wave interaction in finite depth: linear and nonlinear approaches, blow-up and soliton breaking in finite time, integrability perspectives*

16:25 – 17:00   **Huimin Yin**   *Stability of doubly periodic patterns by using Floquet analysis*

Coffee Break   17:00 – 17:40

PhD Students Session   Chairperson: Thomas Wolf

17:40 – 18:05   **Aroonima Sahoo**   *Linear control system on Lie supergroup and its controllability*

18:05 – 18:30   **Tofan Khunitia Kumar**   *Isoclinism and relative central extensions of a pair of Lie superalgebras*

18:30 – 18:55   **Pavel Drozdov**   *The two-photon coalgebra symmetry and discrete-time systems in quasi-standard form*

On Open Access Publishing   Chairperson: Norbert Euler

18:55 – 19:30   **Raphaël Tournoy**   *Episciences overlay journals and their place in the open access landscape*

Friday June 28:

Morning Session   Chairperson: Rafael Hernández Heredero

09:00 – 9:35   **Thomas Wolf**   *Exact Solitary Wave Solutions for a Coupled gKdV-NLS System*

09:35 – 10:10   **Nobuyuki Sawado**   *Long-lived vortices in a sheared flow of the intermediate geostrophic regime*

10:10 – 10:45   **Kouichi Toda**   *Traveling wave solutions for a static version of the Zakharov-Kuznetsov equation via the Painlevé analysis*

Coffee Break   10:45 – 11:25

11:25 – 12:00   **Maria C. Muriel**   *First integrals and $\mathcal{C}^\infty$-structures for ordinary differential equations*

12:00 – 12:35   **Adrian Ruiz**   *On the calculation of exact solutions to a family of general Liénard equations*

12:35 – 13:10   **Stephen Anco**   *Properties and applications of adjoint-symmetries*

Lunch Break   13:10– 14:30

Afternoon Session   Chairperson: Concepcion Muriel

14:30 – 15:05   **Xiao-Chuan Liu**   *On dynamics of solitary waves solutions for the generalized Camassa-Holm equation*

15:05 – 15:40   **Ruoxia Yao**   *Supersymmerties of a new supersymmetric dispersionless system and the classifications*

15:40 – 16:15   **M & N Euler**   *Fully-nonlinear evolution equations: the Schwarzian derivative, recursion operators and integrability*

Auf Wiedersehen!

16:15   **Norbert Euler**   *Some short closing statements*

Saturday June 29:   Departure Day