

Conclusion

Now when we have completed preparation of these three large tomes we can consider the Fifth International Conference “Symmetry in Nonlinear Mathematical Physics” to be over. We cannot expect all the readers to have read all parts of the Proceedings but we believe that they present a good picture of the state-of-art research on various symmetry-related problems.

We endorse the current tendency for facilitation of free access to research results, and we believe that publications of research should serve first of all to scientific community. In this framework we will place all papers included into these Proceedings at the conference web-page: www.imath.kiev.ua/~appmath/conf.html with free access. Parallel electronic publication have a special benefit for the papers included into these Proceedings having colour pictures and animations that are available only in the electronic form.

Free access to proceedings of the previous conferences is also available at the conference page. Our page has also pictures from the 2003 and previous conferences, together with links to home pages of the participants with more photos. A unique information asset of our web site is the page of late Professor Wilhelm Fushchych that contains downloadable version of majority of his papers and books (and is to include all his papers in nearest future), and many photos.

Now our web-page has a most complete collection of links to home pages of people from all over the world whose research is related to symmetry and other exact methods in differential equations: <http://www.imath.kiev.ua/~appmath/links.html> (please send us new links if we have omitted somebody). Many of these people have their papers available at their pages, and we call everybody to follow their example! At the same page you can also find links to lists of forthcoming conferences and books on the subject.

We were very glad to see that all our efforts in the previous year led to a successful meeting. We would like to share the secret of this success that is very simple – all the work was done by the people who there interested in having this conference. We had almost no funds and external support, but unlimited enthusiasm of the local organising committee. We would like to thank here once more to IAMP and STCU for partial support of publication of these Proceedings, and to the publishers that provided books and journals for the exhibition during the conference and donated them to the library of the Institute of Mathematics.

We would like to thank all the participants for their contribution to the success of the conference and to these Proceedings, and for providing inspiration to the organisers. We also would like to list the talks and posters that were presented at the conference but not represented in these Proceedings:

- D. Abrarov*, “Gauge symmetries of the Euler–Poisson equations”
- L. Badowski*, “From separable geodesic motion to bi-Hamiltonian dispersionless chains”
- O. Batsula*, “Conformal invariance, geometry-matter duality and number theory”
- Yu. Berest*, “Representation theory of rational Cherednik algebras”
- Yu. Bespalov*, “Categories beyond globes and cubes”
- L. Chekhov*, “Continuous genus limit of quantum Teichmüller spaces”
- O. Hentosh*, “Nonlocal invariant reductions of supersymmetric hierarchies”
- L. Hoevenaars*, “On the WDVV equations”
- P. Holod*, “Integrable equations for nonlinear Alfvén waves propagation”
- K. Ilyenko*, “Minimal null two-surfaces in 4D Lorentzian space-times”
- V. Inozemtsev*, “Symmetries of 1D Hubbard model with variable range exchange”
- M. Kassem*, “Solution of Burgers equation using the characteristic function method”
- M. Koca*, “Quaternionic roots of $SO(8)$, $SO(9)$, F_4 and the related Weyl groups”
- D. Korotkin*, “Solution of matrix Riemann–Hilbert problem with quasi-permutation monodromy matrices”

- A. Lopatin*, “Some issues of qualitative theory of differential equations: group theoretical approach”
- O. Maspfuhl*, “Linearized Poisson geometry and gauge fields”
- R. Matsyuk*, “Poisson structures for Mathisson equation”
- A. Mikhailov*, “Symmetry approach in differential and symbolic representations”
- P. Morozov*, “New results and unsolved problems in Liouville classification of integrable Hamiltonian systems”
- O. Mul*, “On vibrations in the dynamical systems of controlled machine units with discrete parameters”
- D. Nikshych*, “On fusion categories”
- V. Olyeynik*, “Maxwell–Dirac–Yang–Mills–Einstein equations: the integrability conditions for the particle-like models with spherically symmetric gravitational fields”
- S. Pakuliak*, “Integral presentations for the universal R -matrices in quantum current algebras”
- A. Penskoi*, “Discrete matrix Riccati equations with superposition formulas”
- I. Pirozhenko*, “Heat kernel expansion for the dielectric like spectral problems”
- A. Piryatinski*, “Non-adiabatic dynamics in electron phonon coupled system”
- O. Prylypko*, “Symmetry operators for the Schrödinger equation”
- M. Sait-Ametov*, “Constructions of non-Gaussian measures on the space of distributions over the field of p -adic numbers”
- M. Savina*, “On a correspondence between $N = 2$ mKdV and $N = 2$ sin-Gordon equations”
- J. Ślawianowski*, “Problems of affine symmetry in physics”
- V. Stogniy*, “Symmetry properties of two-dimensional Fokker–Planck equations”
- V. Taranov*, “Symmetries of the kinetic plasma theory”
- P. Tempesta*, “Symmetries of linear difference equations via umbral calculus”
- V. Tkachuk*, “Supersymmetric approach for generating quasi-exactly solvable potentials”
- T. Tsuchida*, “Classification of polynomial integrable systems with one scalar and one vector unknown”
- V. Tsukanov*, “Collective motions in nucleon”
- N. Weaver*, “Operator algebras associated to the Klein–Gordon position representation”
- T. Wolf*, “Quadratic Hamiltonians on $e(3)$ with 3rd and 4th degree first integrals”
- A. Zhalij*, “On integrable three-dimensional quantum systems in magnetic fields”
- A. Zolotaryuk*, “Countable sets of self-adjoint extensions of the Schrödinger operator with point dipole interaction”
- K. Zuev*, “Non-commutative integrability of geodesic flows on homogeneous spaces”

The abstracts of these talks are available at the conference web-page.

To conclude, we invite all researchers working in the symmetry-related fields to take part in the Sixth Conference “Symmetry in Nonlinear Mathematical Physics” that is to be held on June 20–26, 2005.

EDITORS

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