

## International conference “Analysis and topology. Lviv – 2008”

The International Conference "Analysis and Topology. Lviv – 2008" took place on May 26 – June 7, 2008, 2008 at the Lviv Ivan Franko National University in Lviv, Ukraine. It consisted of two parts: Analysis ( May 26-31, 2008) and Topology (June 2-7, 2008).

The Conference was organized by the Lviv Ivan Franko National University, Lviv Mathematical Society and the National University “Lvivs’ka Polytekhnika” .

Organizing and Scientific Program Committee: Banakh T.O., Chyzhykov I.E., Favorov S.Yu., Guran I.Yo., Grishyn A.P., Ivashkovych S., Khabibullin B.N., Kondratyuk A.A., Kyrlych V.M., Laine I., Lopushansky O.V., Lyubarskii Yu.I., Marchenko I.I., Mokhon’ko A.Z., Protasov I.V., Prytula Ya.G., Radul T.M., Ruscheweyh S., Sedletskii A.M., Sheremeta M.M., Shevchuk I.O., Skaskiv O.B., Storozh O.G., Sodin M., Zagorodnyuk A.V., Zarichnyi M.M., Zelins’kyi Yu.B.

Professor Oleh Skaskiv opened the Conference.

The program of the Conference consisted of plenary and sectional lectures.

The plenary lectures of Analysis part of the conference have been delivered by L. Aizenberg (Bar Ilan, Israel) “Geometric generalizations in Kresin-Maz’ya sharp real-part theorems”, T. Bulboacă (Cluj-Napoca, Romania) “Subordination and superordination properties of multivalent functions”, S. Favorov (Kharkiv, Ukraine) “Normal meromorphic functions and almost elliptic functions”, H. Gaussier (Marseille, France) “Stability of the standard complex structure on  $\mathbb{C}^n$ ”, S. Ivashkovich (Lille, France) “Schwarz Reflection Principle and boundary uniqueness for  $J$ -complex curves”, B. Khabibullin (Ufa, Russia) “On the representation of meromorphic functions as a ratio of holomorphic functions without common zeros”, A. Kondratyuk (Lviv, Ukraine) “Meromorphic functions with several essential singularities”, I. Laine (Joensuu, Finland) “Tropical Nevanlinna theory”, K. Malyutin (Sumy, Ukraine) “Generalized representations of subharmonic functions in the half-plane”, I. Marchenko (Szczecin, Poland) “On magnitudes of deviations of meromorphic functions from rational functions. Strong asymptotic functions”, V. Maslyuchenko (Chernivtsi, Ukraine) “Separately polynomial functions on products of Banach spaces”, S. Ruscheweyh (Würzburg, Germany) “Universally prestarlike functions”, A. Sedletskii (Moscow, Russia) “Zeros of functions from Bergman classes in half-plane and Müntz-Sas approximation”, G. Semmler (Munich, Germany) “Complete interpolating sequences, the discrete Muckenhoupt condition, and conformal mapping”, B. Vynnyts’kyi, O. Shavala (Drohobych, Ukraine) “On completeness of the system  $\{\cos(\rho_n x) + \rho_n x \sin(\rho_n x)\}$  and a boundary value problem for Bessel’s operator”, A. Zagorodnyuk (Ivano-Frankivsk, Ukraine) “Polynomial automorphisms on Banach spaces”, Yu. Zelinskyi (Kyiv, Ukraine) “Generally convex sets in complex analysis”, I. Chyzhykov (Lviv, Ukraine) “On the growth of analytic functions”, Ya. Prytula (Lviv, Ukraine) “Henri Lebesgue and Lviv Mathematical School (to 70th anniversary of giving honoris causa of Lviv University to H. Lebesgue”.

During the first week of the conference two parallel sections: Complex analysis and Functional analysis worked simultaneously. About 100 scientists from 12 countries took part in the work of the sections, in particular: P. Agranovich (Kharkiv, Ukraine) “Multi-term asymptotic representations of the measures of subharmonic functions”, G. Braichev (Moscow, Russia) “On methods of estimates of convex functions”, O. Bodnar, M. Zabolotskyi (Lviv, Ukraine) “Equivalence of derivatives of convex slowly varying functions”, D. Bodnar, N. Hoyenko, L.

Manzij (Ternopil, Lviv, Ukraine) “Approximations of the multiple hypergeometric functions with branched continued fractions”, I. Chernega (Lviv, Ukraine) “Symmetric analytic functions on a polydisk of  $\ell_1$ ”, V. Dilnyi (Drohobych, Ukraine) “Riemann’s hypothesis and weighted Hardy spaces”, S. Fedynyak (Lviv, Ukraine) “On maximum modulus point and zero set of entire function”, P. Filevych (Lviv, Ukraine) “On the growth of entire and random entire functions”, M. Hirnyk (Lviv, Ukraine) “Logarithms of moduli of entire functions form nowhere dense set in the space of plurisubharmonic functions”, V. Hladun (Lviv, Ukraine) “Multidimensional sets of relative stability with respect to perturbations of branched fractions with complex elements”, A. Ghaffari (Semnan, Iran) “The modulus of right multipliers on group algebras”, O. Gök (Yildiz, Turkey) “Reflexivity in  $C^*$ -modules”, L. Golinskii (Kharkiv, Ukraine) “A Blaschke-type condition and its application to complex Jacobi matrices”, V. Gorbachuk (Kyiv, Ukraine) “On existence of finite order and finite type entire solutions for differential equations in a Banach space on the whole real axis”, I. Il’ins’ka (Kharkiv, Ukraine) “Arithmetics of series semigroup on multiplicative systems”, O. Katkova (Kharkiv, Ukraine) “On a property of Laguerre’s multiplier operators”, R. Khats’ “On averages of entire functions of improved regular growth”, A. Khrystiyanyan, O. Stashyshyn (Lviv, Ukraine) “A problem of Nevanlinna for meromorphic functions on a punctured plane”, Kh. Kuchmins’ka, S. Vozna (Lviv, Ukraine) “On convergence of two-dimensional continued  $g$ -fractions of the special type”, O. Lopushansky, M. Dmytryshyn (Ivano-Frankivsk, Ukraine) “Abstract Besov spaces, associated with an unbounded linear operator in Banach space”, O. Kushel (Minsk, Belarus’) “On the eigenvalues of linear integral operators with positive kernels”, I. Marchenko (Szczecin, Poland) “Deviations and strong asymptotic spots of meromorphic functions”, Ya. Mahola, M. Sheremeta “Close-to-convexity of entire solutions of a linear differential equation with polynomial coefficients”, V. Molyboga (Kyiv, Ukraine) “Instability zones of the Hill-Schrödinger operators with distributions as potentials”, A. Mahmoodi (Tehran, Iran) “Connes-amenability; some properties for  $M(G, \omega)$ ”, Z. Mozhyrovska (Lviv, Ukraine) “Some conditions of hypercyclicity”, Yu. Muhanna (Sharjah, UAE) “Univalence and biharmonic maps”, I. Sheparovych (Drohobych, Ukraine) “On zeros of a solution of the equation  $f'' + A(z)f = 0$ ”, V. Sherstyukov (Moscow, Russia) “Approximation by linear combinations of partial fractions in space of local analytic functions”, Ya. Vasylyk (Lviv, Ukraine) “Relations between the genus and Polya’s orders of entire functions with asymmetrically distributed zeros”, A. Vishnyakova (Kharkiv, Ukraine) “Some remarks about Hurwitz (stable) polynomials”, O. Zadorozhna, O. Skaskiv (Lviv, Ukraine) “Abscissas of convergence of multiple Dirichlet series”, S. Zagorodnyuk (Kharkiv, Ukraine) “Operators associated with complex symmetric (with respect to the transposition)”, E. Zikkos (Sharjah, UAE) “Analytic continuation of Taylor-Dirichlet series and non-vanishing solutions of a differential system of infinite order”, T. Zvozdetskyi (Chernivtsi, Ukraine) “On isomorphisms commuting with generalized differentiation of Gelfond-Leont’ev”.

The plenary lectures of Topology part of the conference have been delivered by Ya. Prytula (Lviv, Ukraine) “Towards the history of topology in Lviv”, M. Zarichnyi (Lviv, Ukraine) “Spaces of idempotent measures: a survey of results”, L. Bukovský (Kosice, Slovakia) “Luzin and Sierpinski sets”, M. Turzański “Topological proof of the existence of market equilibrium”, Yu. Zelinskii (Kyiv, Ukraine) “Some unsolved problems of complex convex analysis”, S. Maksymenko (Kyiv, Ukraine) “Functions with isolated singularities on surfaces”, V. Sharko (Kyiv, Ukraine) “Morse numbers of flows with toroidal non-wandering set”, M. Golasiński (Torun, Poland) “Gottlieb groups of spheres and projective spaces”, D. Halverson (Knoxvi-

lle, USA) “The cell-like approximation theorem in dimension 5”, S. Nowak (Warsaw, Poland) “Stable shape: Applications and open problems”, V. Valov (North Bay, Canada) “Selections and parametrizations”, W. J. Charatonik (Missouri, USA) “Whitney levels without Whitney maps”, J. Nikiel (Opole, Poland) “Suslinian continua”, R. Cauty (Paris, France) “Approximation of dendroids by trees”, V. A. Chatyrko (Linköping, Sweden) “Inductive dimensions modulo  $P$ ”, S. Ageev (Minsk, Belarus) “On finite-dimensional resolutions”, P. Krupski (Wrocław, Poland) “Generalized Cantor manifolds in finite and infinite dimension theories”, J. Dijkstra (Amsterdam, The Netherlands) “Complete Erdős space and its infinite power”, D. Repovš (Ljubljana, Slovenia) “The Bing-Borsuk and the Busemann conjectures”, T. Radul (Lviv, Ukraine) “Transfinite extension of asymptotic dimension”, T. Banach (Lviv, Ukraine) “The coarse classification of locally finite and Abelian groups”, S. Buyalo (St. Petersburg, Russia) “Embedding and nonembedding results in asymptotic geometry”, K. Alster (Warsaw, Poland) “On the Telgarsky conjecture concerning products of paracompact spaces”, H. Michalewski (Warsaw, Poland) “ $G_\delta$ -points in compact spaces”, A. Karashev (North Bay, Canada) “Michael’s problem and weakly infinite-dimensional spaces”, O. Sipacheva (Moscow, Russia) “Unconditionally closed and algebraic sets in groups”.

During the second week of the conference three parallel sections: Set-theoretic topology, Topological algebra and analysis, and Geometric topology and dimension theory worked simultaneously. About 96 scientists from 12 countries took part in the work of the sections, in particular: O. Nykyforchyn (Ivano-Frankivsk, Ukraine) “Spaces of capacities on metric compacta”, S. Bayramov (Kars, Turkey) “Pointwise fuzzy topology on function spaces in the category of intuitionistic Fuzzy Topological Spaces”, C. Gunduz (Aras) (Kocaeli, Turkey) “Inverse system and inverse limit of intuitionistic fuzzy topological spaces”, V. Mykhaylyuk (Chernivtsi, Ukraine) “The Baire classification of partial derivatives of functions of two variables”, B. Bokalo (Lviv, Ukraine) “Topological properties preserved by scatteredly continuous maps”, O. Maslyuchenko (Chernivtsi, Ukraine) “Discontinuities of  $A$ -continuous functions”, V. Nesterenko (Chernivtsi, Ukraine) “On two classes of functions with the Hahn property”, J. Krzempek (Gliwice, Poland) “Continuous maps that reduce inductive dimensions”, M. Reńska (Warsaw, Poland) “On connected partitions in cones”, Z. Silaeva (Minsk, Belarus) “Extensors of spaces with filtration”, Sz. Plewik (Katowice, Poland) “Some applications of the Kuratowski-Ulam theorem”, A. Kucharski (Katowice, Poland) “Inverse systems and  $I$ -favorable spaces”, P. Kalemba (Mysłowice, Poland) “On the ideal  $(v^0)$ ”, S. Turek (Kielce, Poland) “Continuously homogeneous spaces and topological right loops”, M. Machura (Katowice, Poland) “The space of real places of a field”, A. Ravsky (Lviv, Ukraine) “The continuity of the inverse in paratopological groups, the pseudocompactness and the periodicity”, K. Valkenburg (Amsterdam, the Netherlands) “Nonseparable complete Erdős spaces and sub-measures on uncountable cardinals”, A. Samulewicz (Gliwice, Poland) “The hyperspace of indecomposable subcontinua of a cube”, L. Bazylevych (Lviv, Ukraine) “Convex bodies of constant width in spheres”, N. Mazurenko (Ivano-Frankivsk, Ukraine) “Uncountable absorbing systems in a functional space related to the Hausdorff dimension”, A. A. Borubaev (Bishkek, Kyrgyzstan) “The Category characterization of the main classes of the uniform spaces and uniformly continuous mappings”, B. E. Kanetov (Mysłowice, Poland) “Some questions from the uniformly continuous mappings theory”, M. M. Kovár (Brno, Czech Republic) “FCA-like approach to computational quantum topology”, A. Croitoru (Iasi, Romania) “On order-continuous set multifunctions in Hausdorff topology”, O. Petrenko (Kyiv, Ukraine) “Decompositions of topological spaces and total

recurrence”, I. Guran (Lviv, Ukraine) “Topological cancellative semigroups”, O. Gutik (Lviv, Ukraine) “On linearly ordered H-closed topological semilattices”, Ye. Polulyakh (Kyiv, Ukraine) “Regular and critical points of continuous functions”, Ya. Dymarskii (Lugansk, Ukraine) “Quasilinear operators and Morse functions”.

There were some social events for participants: Welcome party, Conference dinner, Bus Excursions to Castles of Lviv Region.

Two books of Abstracts (containing about 186 contributions) were published before the beginning of the Conference.

Information about the Conference can be found on the web-page

<http://www.franko.lviv.ua/faculty/mechmat/Departments/conf/conf2008.html>

*matstud@franko.lviv.ua*

*T. O. Banakh, I. E. Chyzhykov, O. B. Skaskiv*