

**XVIth Conference
on
Analytic Functions
and
Related Topics**



Chełm

June 26 - 29, 2011

ORGANIZER

**Institute of Mathematics and Computer Science
of the State School of Higher Education in Chełm**

CONFERENCE PROGRAM

Sunday, June 26th, 2011

- Since 10.00 Registration of conference participants
(Hotel "Kamena" - Armii Krajowej 50, Chełm)
- 12.45 - 14.00 Lunch
(Hotel "Kamena" - Armii Krajowej 50, Chełm)
- 14.30 - 15.00 Registration of conference participants - continuation
(State School of Higher Education in Chełm
- Wojsławicka 8B, Chełm)
- 15.00 - 17.10 Jubilee of Professor Bogdan Bojarski 80th Birthday
(Wojsławicka 8B, Chełm)
- 17.30 - 18.45 Dinner
(Chełm Culture House - Pl. Tysiąclecia 1, Chełm)
- 19.00 - 21.00 Concert "*O sole mio - the greatest hits of operetta*"
(Chełm Culture House - Pl. Tysiąclecia 1, Chełm)

Monday, June 27th, 2011

- 7.00 - 8.30 Breakfast
(Hotel "Kamena" - Armii Krajowej 50, Chełm)
- 9.00 - 10.50 Plenary lectures
- 10.50 - 11.20 Coffee break
- 11.20 - 12.10 Plenary lecture
- 12.20 - 13.45 Section talks
- 13.50 - 14.30 Lunch
(Wojsławicka 8B, Chełm)
- 14.30 - 15.35 Section talks
- 16.15 - 18.15 Excursion „*Welcome to Chełm*”
- 19.30 Banquet in „Kozak” Restaurant
(Hrubieszowska 37, Chełm)

Tuesday, June 28th, 2011

- 7.00 - 8.30 Breakfast
(Hotel "Kamena" - Armii Krajowej 50, Chełm)
- 9.00 - 10.50 Plenary lectures
- 10.50 - 11.20 Coffee break
- 11.20 - 12.10 Plenary lecture
- 12.20 - 13.45 Section talks
- 13.50 - 14.30 Lunch
(Wojślawicka 8B, Chełm)
- 14.30 - 15.25 Section talks
- 16.00 - 18.30 Excursion „*Old Chalk Mine*”
- 19.30 Barbecue
(The International Academic Cooperation Center
- Deputyczne Nowe)

Wednesday, June 29th, 2011

- 7.00 - 8.30 Breakfast
(Hotel "Kamena" - Armii Krajowej 50, Chełm)
- 9.00 - 10.50 Plenary lectures
- 10.50 - 11.20 Coffee break
- 11.20 - 12.10 Plenary lecture
- 12.20 - 13.15 Section talks
- 13.20 - 14.00 Open Seminar on Recent Developments in Complex Analysis and
Poster session
- 14.00 - 14.10 Closing of the conference
- 14.10 - 14.50 Lunch
(Wojślawicka 8B, Chełm)

**Plenary lectures, section talks and poster session
will be held at Wojślawicka 8B.**

PROGRAM OF TALKS

Sunday, June 26th, 2011

Plenary lecture - room 007

Chairman: Józef Zajac

16.20 - 17.10 Sergey K. Vodopyanov: *Invariability properties of Sobolev mappings and its applications*

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Monday, June 27th, 2011

Plenary lectures - room 007

Chairman: Józef Zajac

9.00 - 9.50 Bogdan Bojarski: *Taylor expansion and Sobolev spaces*
 10.00 - 10.50 Aimo Hinkkanen: *Growth of second Painlevé transcendents*
 11.20 - 12.10 Agnieszka Kałamajska: *Gagliardo-Nirenberg inequalities setting in weighted Orlicz spaces and strongly nonlinear variants*

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Section talks I - room 007

Chairman: Dariusz Partyka

12.20 - 12.45 Toshihiro Nakanishi: *Parameterization of Teichmüller spaces by trace functions*
 12.50 - 13.15 Pekkan Pankka: *Quasisymmetric parametrization of Semmes spaces*
 13.20 - 13.45 Daria V. Isangulova: *Rigidity of classes of mappings in sub-Riemannian geometry*

Chairman: Toshihiro Nakanishi

14.30 - 14.55 Miodrag Mateljević: *Invertibility and quasiconformality of harmonic mappings between smooth Jordan domains*
 15.00 - 15.15 Raimo Näkki: *Boundary distortion and quasiconformal mappings*
 15.20 - 15.35 Oksana Gnatiuk: *Classification of isolated singularities of subharmonic functions*

Section talks II - room 009

Chairman: Roman Dwilewicz

- 12.20 - 12.45 Yuri Zelinski: *On continuous mappings of domains*
 12.50 - 13.15 Maria Karmanova: *New Approach to Investigation of Carnot-Caratheodory Spaces and Applications*
 13.20 - 13.45 Tadeusz Krasieński: *The Łojasiewicz exponent of singularities*

Chairman: Tadeusz Krasieński

- 14.30 - 14.55 Antoni Pierzchalski, Adam Bartoszek, Jerzy Kalina: *Gradients on leaves of a foliation*
 15.00 - 15.15 Mika Koskenoja: *Reflection principle for the homogeneous Monge-Ampère equation*
 15.20 - 15.35 Kseniia Verbinina: *The differential operators of infinite order based on the Gevrey formal power series*

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Section talks III - room 105

Chairman: Jarosław Kapeluszny

- 12.20 - 12.45 Michail A. Sheshko, Siergiej M. Sheshko, Paweł Karczmarek: *Singular integral equation with Cauchy kernel on a composed contour*
 12.50 - 13.15 Paweł Wójcik, Michail A. Sheshko, D. Pylak, Paweł Karczmarek: *Solution of a class of the first kind singular integral equation with multiplicative Cauchy kernel*
 13.20 - 13.45 Paweł Jarczyk: *Eigensolutions of the \mathbb{R} -linear problem and their applications to invisible materials*

Chairman: Michail Sheshko

- 14.30 - 14.55 Vladimir Mityushev: *R -linear problem for multiply connected domains and alternating method of Schwarz*
 15.00 - 15.15 Marta Oleksy: *Constructive solution to R -linear problems for elliptic inclusions*
 15.20 - 15.35 Paweł Karczmarek: *Singular integral equations with multiplicative Cauchy kernels and infinite domains of integration*

Section talks IV - room 107

Chairman: Piotr Liczberski

- 12.20 - 12.45 Ivan I. Marchenko: *Strong asymptotic values of entire and meromorphic functions*
- 12.50 - 13.15 Ewa Ciechanowicz: *Strong asymptotic functions of meromorphic functions of finite lower order*
- 13.20 - 13.45 Anatoliy Vlasyuk, Tetyana Tsvetkova: *Application of numerical conformal mappings solving problems of mass transfer during filtration and moisture transfer of salt solutions in full and partial saturation soils*

Chairman: Ivan I. Marchenko

- 14.30 - 14.55 Agnieszka Niemczynowicz: *Complex-analytical approach of harmonic oscillations in Zwanzig's chain*
- 15.00 - 15.15 Iryna Denega: *Some extremal problems on nonoverlapping domains*
- 15.20 - 15.35 Olena Karupu: *On some properties of moduli of smoothness of conformal mapping*

Tuesday, June 28th, 2011

Plenary lectures - room 007

Chairman: Julian Ławrynowicz

- 9.00 - 9.50 Hiroshige Shiga: *On generalizations of Plemelj's Theorem on Cauchy integrals*
 10.00 - 10.50 Matti Vuorinen: *Distortion under quasiconformal maps*
 11.20 - 12.10 Dorin Ghisa: *Riemann's zeta function has only simple zeros*

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Section talks I - room 007

Chairman: Ken-ichi Sakan

- 12.20 - 12.45 Julian Ławrynowicz: *Advantages of complex non-Riemannian metrics in the study of electromagnetic field*
 12.50 - 13.15 Oksana Gnatiuk, Andriy Kondratyuk: *Subharmonic functions and electric fields in ball layers*
 13.20 - 13.45 Andrzej Michalski: *Harmonic mappings with starlike analytic part*

Chairman: Andriy Kondratyuk

- 14.30 - 14.45 Yuriy I. Kharkevych, Tetyana A. Stepaniuk: *About approximation of the functions from the classes W^1H_ω by their Poisson's integrals*
 14.50 - 15.05 Inna V. Kalchuk, U.Z. Grabova: *Approximate properties of the threeharmonic integrals of Poisson on classes of differentiable functions*
 15.10 - 15.25 Oleh Storozh: *Some analytic properties of the Weyl function of closed operator*

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Section talks II - room 009

Chairman: Sergey K. Vodopyanov

- 12.20 - 12.45 Grzegorz Łysik: *Mean value properties of polyharmonic and real analytic functions*
 12.50 - 13.15 Peter Dovbush: *Boundary behavior of normal functions*
 13.20 - 13.45 Slavko Simic: *Convolutions with slowly varying functions/sequences in the complex domain*

Chairman: Antoni Pierzchalski

- 14.30 - 14.45 Mariana Goldak, Andriy Khrystiyany: *Holomorphic functions of completely regular growth in the punctured plane*
- 14.50 - 15.05 Anna Kaźmierczak, Antoni Pierzchalski: *Modules of transversal families of foliations*
- 15.10 - 15.25 Agnieszka Klekot: *Vector forms with values in bundles*

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Section talks III - room 105

Chairman: Yuriy I. Kharkevych

- 12.20 - 12.45 Aleksandr A. Egorov: *Properties of solutions of differential inequalities with null Lagrangians*
- 12.50 - 13.15 Vitalii S. Shpakivskyi: *On boundary values of the Cauchy type integral in a three-dimensional harmonic algebra with a two-dimensional radical*
- 13.20 - 13.45 Richard F. Bonner: *Towards micro-localisation of invertibility of Gevrey distributions*

Wednesday, June 29th, 2011

Plenary lectures - room 007

Chairman: Hiroshige Shiga

- 9.00 - 9.50 Dariusz Partyka, Ken-ichi Sakan: *A simple deformation of quasi-conformal harmonic mappings in the unit disk*
- 10.00 - 10.50 Mikhail V. Korobkov: *Morse-Sard Theorem for Sobolev Functions and Applications in Fluid Mechanics*
- 11.20 - 12.10 Ilgiz R. Kayumov: *Convergence of simple partial fractions in $L_p(\mathbb{R})$*

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Section talks I - room 007

Chairman: Matti Vuorinen

- 12.20 - 12.45 Vesna Manojlović: *Harmonic quasiconformal mappings in domains in \mathbf{R}^n*
- 12.50 - 13.15 Katarzyna Wilczek: *The harmonic center of a trilateral and the Apollonius point of a triangle*

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Section talks II - room 009

Chairman: Grzegorz Łysik

- 12.20 - 12.45 Natalia Zorii: *Gauss variational problem for infinite dimensional vector measures*
- 12.50 - 13.15 Piotr Liczberski: *A geometric characterization of strongly starlike mappings in the unit ball of \mathbb{C}^n*

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Section talks III - room 105

Chairman: Ilgiz R. Kayumov

- 12.20 - 12.45 Irina Dmitrieva: *to be announced*
- 12.50 - 13.15 Grzegorz Rządowski: *Derivative polynomials and their applications*

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Chairman: Aimo Hinkkanen

- 13.20 - 14.00 *Open Seminar on Recent Developments in Complex Analysis*

POSTER SESSION

- Jacek Dziok *Properties of the convolution with prestarlike functions*
- Iryna Gładysz-Szopińska *Zhukovsky's Function*
- Joanna Kowalczyk,
Edyta Leś *On properties of some family of holomorphic functions
of several complex variables*
- Adam Lecko, *The boundary subordination*
- Jan Stankiewicz,
Katarzyna Wilczek *Some estimations in the Paprocki Space*
- Oksana Sumyk *Estimates of the sum of Dirichlet series*
- Katarzyna Trąbka-Więcław *On semi-typically real functions which are generated by
a fixed semi-typically real function*

Poster session will be held at Hall (Wojslawicka 8B).