

Preface

The International Summer School in Several Complex Variables was held at Szczyrk (Poland) during the week of 19–23 June, 2006.

The Scientific Committee of the conference consisted of: Eric Bedford (Bloomington, USA), Urban Cegrell (Umeå, Sweden), Evgeni Chirka (Moscow, Russia), Franc Forstneric (Ljubljana, Slovenia), Pengfei Guan (Montreal, Canada), Takeo Ohsawa (Nagoya, Japan), Peter Pflug (Oldenburg, Germany), Józef Siciak (Cracow, Poland), Ahmed Zeriahi (Toulouse, France).

The Organizing Committee of the conference consisted of: Zbigniew Błocki, Rafał Czyż (Secretary), Marek Jarnicki (Chairman), Sławomir Kołodziej, Włodzimierz Zwonek. The full list of participants is given on page iii.

Excellent lectures by top researchers (see the list on page v) gave Ph.D. students and young mathematicians an opportunity to learn about the recent developments in several areas of SCV theory. The background was provided in four courses given by invited speakers Xiuxiong Chen, Eric Bedford, Peter Pflug and Wiesław Pleśniak.

The organizers acknowledge with thanks the financial support by the Ministry of Higher Education, the Committee on Mathematics of the Polish Academy of Sciences, and the Institute of Mathematics of the Jagiellonian University. Our thanks also go to all those people who helped to organize the conference and made this scientific event a success.

The present double issue of *Annales Polonici Mathematici* contains thirteen research and survey papers of the participants of the conference. We thank the reviewers for their work.

The Organizing Committee

List of participants

1. PER ÅHAG (per.ahag@miun.se)
2. DENIZ BALAKCI (d_bala01@uni-muenster.de)
3. ERIC BEDFORD (bedford@indiana.edu)
4. SLIMANE BENELKOURCHI (slimaneb@kt.h.se)
5. BERIT BENGTSON (berit.bengtson@math.umu.se)
6. THOMAS BLOOM (bloom@math.toronto.edu)
7. ZBIGNIEW BŁOCKI (Zbigniew.Blocki@im.uj.edu.pl)
8. MARITZA BRANKER (mbranker@math.syr.edu)
9. LINUS CARLSSON (linus@math.umu.se)
10. URBAN CEGRELL (Urban.Cegrell@math.umu.se)
11. BO-YONG CHEN (chenbo-yong@lycos.com)
12. XIUXIONG CHEN (xxchen@math.wisc.edu)
13. EWA CIECHANOWICZ (sp1qxv@poczta.onet.pl)
14. DANUTA CIESIELSKA (smciesie@kinga.cyf-kr.edu.pl)
15. DAN COMAN (dcoman@mailbox.syr.edu)
16. RAFAŁ CZYŻ (Rafal.Czyz@im.uj.edu.pl)
17. SŁAWOMIR DINEW (Slawomir.Dinew@im.uj.edu.pl)
18. ŻYWOMIR DINEW (Zywomir.Dinew@im.uj.edu.pl)
19. MAŁGORZATA DOWNAROWICZ
(Malgorzata.Downarowicz@im.uj.edu.pl)
20. ARMEN EDIGARIAN (Armen.Edigarian@im.uj.edu.pl)
21. SAID EL MARZGUIOUI (smarzgui@science.uva.nl)
22. JACEK FABRYKOWSKI (fabrykowski@sbcglobal.net)
23. ANDERS FÄLLSTRÖM (anders.fallstrom@math.umu.se)
24. ERLEND FORNAESS WOLD (erlendfw@math.uio.no)
25. FRANC FORSTNERIC (franc.forstneric@fmf.uni-lj.si)
26. SALLA FRANZÉN (salla@math.uu.se)
27. KEIKO FUJITA (keiko@cc.saga-u.ac.jp)
28. ANDRZEJ GANCZAR (aganczar@golem.umcs.lublin.pl)
29. ELIN GÖTMARK (elin@math.chalmers.se)
30. VINCENT GUEDJ (guedj@picard.ups-tlse.fr)
31. LISA HÄLLSTIG (lisa.hallstig@math.umu.se)

32. MARIUS IRGENS (mariusi@math.ntnu.no)
33. MAREK JARNICKI (Marek.Jarnicki@im.uj.edu.pl)
34. WITOLD JARNICKI (Witold.Jarnicki@im.uj.edu.pl)
35. PIOTR JUCHA (Piotr.Jucha@im.uj.edu.pl)
36. GRZEGORZ KAPUSTKA (Grzegorz.Kapustka@im.uj.edu.pl)
37. SŁAWOMIR KOŁODZIEJ (Slawomir.Kolodziej@im.uj.edu.pl)
38. MARTA KOSEK (Marta.Kosek@im.uj.edu.pl)
39. ŁUKASZ KOSIŃSKI (Lukasz.Kosinski@im.uj.edu.pl)
40. NORM LEVENBERG (nlevenbe@indiana.edu)
41. EWA LIGOCKA (elig@mimuw.edu.pl)
42. ERIK LOW (elow@math.uio.no)
43. SIONE MA'U (sinmau@indiana.edu)
44. LE MAU HAI (mauhai@fpt.vn)
45. BÉLA NAGY (nbela@sol.cc.u-szeged.hu)
46. ANDREEA NICOARA (anicoara@math.harvard.edu)
47. NIKOLAI NIKOLOV (nik@math.bas.bg)
48. TAKEO OHSAWA (ohsawa@math.nagoya-u.ac.jp)
49. RODRIGO PARRA (rparra@math.kth.se)
50. PETER PFLUG (pflug@mathematik.uni-oldenburg.de)
51. WIESŁAW PLEŚNIAK (Wieslaw.Plesniak@im.uj.edu.pl)
52. SZYMON PLIŚ (Szymon.Plis@im.uj.edu.pl)
53. EVGENY POLETSKY (epolets@mailbox.syr.edu)
54. NGUYEN QUANG DIEU (dieu_vn@yahoo.com)
55. ALEXANDER RASHKOVSKII (alexander.rashkovskii@uis.no)
56. HAAKAN SAMUELSSON (hasam@math.chalmers.se)
57. JÓZEF SICIĄK (Jozef.Siciak@im.uj.edu.pl)
58. RAGNAR SIGURDSSON (ragnar@hi.is)
59. ALICJA SKIBA (Alicja.Skiba@im.uj.edu.pl)
60. TADEJ STARCIC (tadej.starctic@fmf.uni-lj.si)
61. MAŁGORZATA STAWISKA (stawiska@math.uic.edu)
62. JACOB STURM (sturm@andromeda.rutgers.edu)
63. JERZY SZCZEPAŃSKI (Jerzy.Szczepanski@im.uj.edu.pl)
64. GANG TIAN (tian@math.princeton.edu)
65. PIOTR TWORZEWSKI (Piotr.Tworzewski@im.uj.edu.pl)
66. FABIO VLACCI (vlacci@math.unifi.it)
67. FRANK WIKSTRÖM (frank.wikstrom@miun.se)
68. TADEUSZ WINIARSKI (Tadeusz.Winiarski@im.uj.edu.pl)
69. ELIZABETH WULCAN (wulcan@math.chalmers.se)
70. PAWEŁ ZAPALOWSKI (Pawel.Zapalowski@im.uj.edu.pl)
71. WŁODZIMIERZ ZWONEK (Wlodzimierz.Zwonek@im.uj.edu.pl)

List of lectures

Monday, June 19

- F. FORSTNERIC, Holomorphic curves in complex spaces
- E. BEDFORD, Course on Multivariable Complex Dynamics (I)
- X.-X. CHEN, Some Aspects of Kähler Geometry (I)
- E. LIGOCKA, The complexification and iteration of extendable real analytic polynomial endomorphisms of \mathbb{R}^2
- E. POLETSKY, Hardy and Bergman spaces on hyperconvex domains
- D. COMAN, Upper level sets for Lelong numbers of positive closed currents on the projective space
- U. CEGRELL, Potentials and Pluripotential Theory
- P. PFLUG, Invariant Functions in Complex Analysis—a survey (I)

Tuesday, June 20

- P. PFLUG, Invariant Functions in Complex Analysis—a survey (II)
- W. PLEŚNIAK, Course on Approximation Theory (I)
- E. BEDFORD, Course on Multivariable Complex Dynamics (II)
- X.-X. CHEN, Some Aspects of Kähler Geometry (II)
- J. STURM, The Monge–Ampère operator and geodesics in the space of Kähler metrics
- A. RASHKOVSKII, Relative types of plurisubharmonic functions
- E. CIECHANOWICZ, On the sum of Petrenko’s deviations of an entire function towards polynomials
- R. SIGURDSSON, The Siciak–Zahariuta extremal function as the envelope of disc functionals
- N. NIKOLOV, On the definition of the Kobayashi–Buseman metric
- K. FUJITA, Reproducing kernels for holomorphic functions on some balls related to the Lie ball
- E. WULCAN, Residue currents and their relation to ideals of holomorphic functions

Wednesday, June 21

- T. OHSAWA, Levi-flats in complex manifolds
- B. CHEN, Invariant metrics on non-smooth domains

- A. NICOARA, The Kohn algorithm in more general classes of functions
E. BEDFORD, Course on Multivariable Complex Dynamics (III)

Thursday, June 22

- G. TIAN, Kähler–Ricci flows and minimal models
X.-X. CHEN, Some Aspects of Kähler Geometry (III)
V. GUEDJ, Degenerate complex Monge–Ampère equations
E. BEDFORD, Course on Multivariable Complex Dynamics (IV)
N. LEVENBERG, Exterior Monge–Ampère solutions
P. PFLUG, Invariant Functions in Complex Analysis—a survey (III)
T. BLOOM, Random polynomials and pluripotential theory
W. PLEŚNIAK, Course on Approximation Theory (II)

Friday, June 23

- P. PFLUG, Invariant Functions in Complex Analysis—a survey (IV)
T. WINIARSKI, Some applications of Gröbner bases in complex analysis
W. PLEŚNIAK, Course on Approximation Theory (III)