DIFFERENTIAL GALOIS THEORY BANACH CENTER PUBLICATIONS, VOLUME 58 INSTITUTE OF MATHEMATICS POLISH ACADEMY OF SCIENCES WARSZAWA 2002

LIST OF TALKS

Monday, May 28th

MORNING SESSION

Chairman: A. Białynicki-Birula

- A. R. Magid, The Picard-Vessiot closure in differential Galois theory.
- ${\bf F.\ Ulmer},\ A\ formula\ for\ Liouvillian\ solutions\ of\ third\ order\ equations.$
- D. Bertrand, Blended extensions and differential Galois groups.

AFTERNOON SESSION

Chairman: B. H. Matzat

- M. Knebusch, An existence theorem for systems of implicit differential equations.
- M. Tressl, A structure theorem for differential algebras.
- P. Kowalski, The socle property for differential algebraic groups.
- O. Cormier, On liouvillian solutions of linear differential equations of order 4 and 5.

Tuesday, May 29th

MORNING SESSION

Chairman: M. Knebusch

- F. Beukers, Algebraic solutions of the Lamé equation.
- B. Malgrange, Non-linear differential Galois theory.
- J.-P. Ramis, Galoisian obstructions to integrability of Hamiltonian systems.

AFTERNOON SESSION

Chairman: J.-P. Ramis

- J. J. Morales, The Poincaré-Arnold-Melnikov integral and the Picard-Vessiot theory.
- L. Stolovitch, Cartan type algebras of singular holomorphic vector fields.
- A. J. Maciejewski, Non-integrablity of certain mechanical systems—applications of Morales-Ramis theory.
- D. Boucher, Some methods of non-integrability of hamiltonian systems.

Wednesday, May 30th

MORNING SESSION

Chairman: A. Pillay

- A. Macintyre, On the model theory of Frobenius on Witt vectors.
- E. Hrushovski, Logical approaches to differential equations in large positive characteristic.
- M. F. Singer, Algebraic curves via linear differential equations.
- J. Hartmann, Invariants and differential Galois groups of fourth order differential equations.

Thursday, May 31st

MORNING SESSION

Chairman: A. A. Bolibruch

- A. Pillay, Differential algebraic groups and the Tannakian treatment of the Picard-Vessiot theory.
- Z. Chatzidakis, Some examples of difference Galois groups.
- D. Schlomiuk, Some algebro-geometric/differential-algebraic aspects of planar polynomial vector fields.

AFTERNOON SESSION

Chairman: S. Zarzuela

- E. Compoint and J.-A. Weil, Absolute factorisation of differential operators.
- P. Bayer, Uniformization of certain Shimura curves.
- A. Nowicki, Rings of constants of polynomial derivations.
- P. Wiśniewski, The Lasker-Noether theorem for skew derivations.

Friday, June 1st

MORNING SESSION

Chairman: A. Tyc

- B. H. Matzat, Differential Galois theory in positive characteristic.
- A. A. Bolibruch, Inverse monodromy problems and isomonodromic deformations.
- H. Żołądek, Picard-Vessiot extensions and elementary functions.

AFTERNOON SESSION

Chairman: M. F. Singer

- S. Zarzuela, Local cohomology and \mathcal{D} -modules.
- P. Goldstein, Kovacic vs. Painlevé—L. Bianchi's IX cosmological model.