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Report on International Conference on Harmonic Analysis and Applications (I.C.H.A.A.-06), – Sousse, Tunisia, November 6 - 11, 2006

The “International Conference on Harmonic Analysis and Applications” took place in Sousse (a seaside resort in Tunisia) from November 6 through 11, 2006.

There were about 125 participants from Tunisia and abroad, as: Bulgaria, Denmark, France, Germany, Japan, Jordan, Morocco, Netherlands, Portugal, Russia, Uzbekistan, USA.

The activities focused on commutative and non commutative harmonic analysis, analysis on homogeneous spaces, representation theory, hypergroups, special functions and the interplay between these fields. It was also a forum for scientific and fruitful exchange of new ideas in these different areas. The conference’s purpose was to gather different people in Tunisia working on Harmonic Analysis and some experts from several corners of the world. Young researchers were also invited to attend the event and encouraged to present their recent works and to discuss their subjects with the foreign experts. There were several plenary invited talks as well as twenty minutes contributed talks especially for that purpose, see enclosed conference programme.

For more details, organizing and scientific committees, full program, list and e-mail addresses of participants, see <http://ichaa.50webs.com/>

List of Invited Talks

K. TRIMECHE (Tunis), Opérateurs de transmutation et analyse harmonique;

T.H. KOORNWINDER (Amsterdam), The relationship between Zhedanov’s algebra $AW(3)$ and the double affine Hecke algebra in the rank 1 case;

- B. ORSTED (Aharus), Analysis of Dunkl Laplacians;
- A. FITOUHI (Tunis), q -Principes d'incertitude;
- W. CONNETT (St-Louis Missouri), Recent advances in the classification of two dimensional polynomial hypergroups;
- K. KOUFANY (Nancy), Helgason's conjecture for bounded symmetric domains;
- E. KANIUTH (Paderborn), Hardy's uncertainty principle for nilpotent Lie groups;
- T. KOBAYASHI (Kyoto), On locally compact symmetric spaces;
- A. BAKLOUTI (Sfax), Weak proper actions on solvable homogeneous spaces;
- V. KIRYAKOVA (Sofia), Fractional order analogues of hyper-Bessel differential operators, multi-index Mittag-Leffler functions and related integral transforms;
- A. HASSAIRI (Sfax), Lois de Riesz sur les cônes symétriques;
- S. BEN SAID (Nancy), On the integrability of a representation of $sl(2, \mathbb{R})$;
- J. FARAUT (Paris VI), Projections d'intégrales orbitales;
- C. BERG (Copenhagen), Transformations of moment sequences, a fix-point-measure and its Mellin transform;
- D. MANCHON (Clermont-Ferrand), Exponential Lie groups, annihilators and deformations;
- M. VOIT (Dortmund), Bessel convolutions on matrix cones: Algebraic properties and random walks;
- M. DUFLO (Paris VII), Branching rules for discrete series of reductive groups and moment maps;
- D. PUGUNTKE (Bielefeld), The dual of $L^1 K(N)$ for Heisenberg groups N and compact commutative K ;
- M. ISMAIL (Central-Florida), Plancherel-Rotach asymptotics of q -orthogonal polynomials;
- C. MOLITOR-BRAUN (Luxembourg), The Paley-Wiener theorem for certain nilpotent Lie groups
- S. MUSTAPHA (Paris VI), Marches aléatoires sur certains groupes p -adiques moyennables;
- A. YGER (Bordeaux 1), Autour de problèmes inverses liés à la déconvolution;
- P. BOUGEROL (Paris VI), Duistermaat Heckman measure for Coxeter groups;

- M. ROSLER (Clausthal), Bessel convolutions on matrix cones;
- J.-L. CLERC (Nancy), Géométrie de la frontière de Shilov;
- P. TORASSO (Poitiers), On quasi-reductive Lie algebras;
- C. TOROSSIAN (Paris), Construction of characters via Kontsevich diagrams;
- K. STEMPAK (Wroclaw), Transplantation theorems;
- D. ARNAL(Dijon), Représentations monomiales du groupe des matrices triangulaires supérieures;
- P. DELORME (Marseille), Sur la décomposition de Cartan des espaces symétriques réductifs p -adiques;
- E. KOELINK (Delft), Indeterminate moment problem associated with the Al-Salam and Chihara polynomials;
- M. BEN AMMAR (Sfax), Deformation of $\text{Vect}_p(\mathbb{R})$ -modules of symbols.





Along with the tight scientific program and impressive presence of well known experts from many countries, the participants enjoyed the almost-summer season at the mediterranean seaside resort of Sousse, the hospitality of the splendid hotel El-Mouradi, the interesting social program, banquet dinner with Arab dances and brought with them as souvenirs some stone pieces of the Sahara desert, known as “Roses du Sable” (Desert Roses) . . .

On behalf of the thankful participants,

VIRGINIA KIRYAKOVA