

**Modern Methods of Time-Frequency Analysis II**

Programme organized by:

**Hans-Georg Feichtinger and Karlheinz Gröchenig****September 10 - December 15, 2012****Phase space methods for pseudodifferential operators**

Workshop organized by:

**Karlheinz Gröchenig, Maarten de Hoop and Michael Ruzhansky****October 15 - 19, 2012****• Monday, October 15, 2012****9:45** Welcome and Registration**10:15 - 11:00** Stephane Jaffard*Pseudodifferential operators and stochastic processes***11:00 - 11:30** coffee break**11:30 - 12:15** Alberto Parmeggiani*Spectra of polynomial-coefficient differential systems: the case of Non-Commutative Harmonic Oscillators***12:15 - 14:30** lunch break**14:30 - 15:15** Ingo Witt*Degenerate pseudodifferential operators of Vishik-Grushin type***15:15 - 15:45** break**15:45 - 16:30** Sundaram Thangavelu*Riesz transforms and multipliers for the Grushin operator***• Tuesday, October 16, 2012****10:00 - 10:45** Marius Mantoiu*Quantization rules and coorbit spaces for families of bounded operators***10:45 - 11:15** coffee break**11:15 - 12:00** Baoxiang Wang *$\alpha$ -Modulation Spaces (I) Scaling, Embedding and Algebraic Properties***12:00 - 14:30** lunch break**14:30 - 15:15** Elena Cordero*Gabor Representations of evolution operators***15:15 - 15:45** break**15:45 - 16:30** Joachim Toft*Multiplication properties in pseudo-differential calculus with small regularity assumptions on the symbols***18:00 - 20:30** Social Event

- **Wednesday, October 17, 2012**

**10:00 - 10:45** Maarten V. de Hoop

*Reverse-time-migration based inverse scattering using the dyadic parabolic decomposition of phase space*

**10:45 - 11:15** coffee break

**11:15 - 12:00** Mitsuru Sugimoto

*Optimal constants and extremisers for some smoothing estimates*

**12:00 - 12:45** Abdesslam Boulkhemair

*On paradifferential operators and canonical transformations*

- **Thursday, October 18, 2012**

**10:00 - 10:45** Michael Ruzhansky

*Gevrey spaces and ultradistributions on compact Lie groups and homogeneous spaces*

**10:45 - 11:15** coffee break

**11:15 - 12:00** Ville Turunen

*Sharp Garding inequality on compact Lie groups*

**12:00 - 14:30** lunch break

**14:30 - 15:15** Jens Wirth

*Classes of pseudodifferential operators on compact Lie groups and global hypoellipticity*

**15:15 - 15:45** break

**15:45 - 16:30** Julio Delgado

*On the nuclearity of pseudodifferential operators on compact Lie groups*

- **Friday, October 19, 2012**

**10:00 - 10:45** Goetz Pfander

*New results on the boundedness of linear and multilinear pseudodifferential operators on  $L^p$ , Sobolev and modulation spaces*

**10:45 - 11:15** coffee break

**11:15 - 12:00** Rodolfo H. Torres

*A new geometric regularity condition for the endpoint estimates of bilinear Calderón-Zygmund operators*

**12:00 - 12:45** Arpad Benyi

*Compact bilinear operators and commutators*

**All lectures as well as the registration take place in the ESI Boltzmann Lecture Hall**