

Program
Workshop on Harmonic Analysis and Applications
Baton Rouge, January 3 and 4, 2007

Morning Session Wednesday, January 3, Tureaud Hall 103, chair Boris Rubin		
Time	Speaker	Title
8:45-9:00	Opening	
9:00-9:40 9:40-10:10	Leon Ehrenpreis Todd Quinto	Parametric and nonparametric Radon transforms Support theorems for the spherical Radon transform on manifolds
10:10-10:30	Break, refreshments in Tureaud Hall 105	
10:30-11:00 11:00-11:30 11:30-12:00	Fulton Gonzalez Tomoyuki Takehi Artem Zvavitch	The modified wave equation on the sphere and extensions to compact symmetric spaces (joint with Jingjin Zhang) Invariant differential operators on Cartan motion groups and range characterizations for matrix Radon transforms (joint with Fulton B. Gonzalez) There is no local characterization of intersection bodies (joint with F. Nazarov and D. Ryabogin)

Morning Session Thursday, January 4, Tureaud Hall 103, chair Gestur Ólafsson		
Time	Speaker	Title
9:00-9:40 9:40-10:10	David Larson Palle Jorgensen	Triple wavelet sets (joint with Peter Massopust and Gestur Ólafsson) C^* -algebras, fractals, wavelets and dynamics (joint with Dorin Dutkay)
10:10-10:30	Break, refreshments Tureaud Hall 105	
10:30-11:00 11:00-11:30 11:30-12:00	Darrin Speegle Isaac Pesenson Ralph Howard	TBA Bernstein-Nikolskii inequality on symmetric spaces Results and conjectures on the "size" of the space of smooth functions on a compact manifold

Afternoon Session Wednesday, January 3, Tureaud Hall 102, chair Fulton Gonzalez, Integral Geometry and Related Topics		
Time	Speaker	Title
2:00-2:30	Alexander Koldobsky	Intersection bodies and L_p -spaces
2:30-3:00	Dmitry Ryabogin	On the local equatorial characterization of zonoids (joint with F. Nazarov and A. Zvavitch)
3:00-3:30	Vladyslav Yaskin	Inequalities of the Kahane-Khinchin type and sections of L_p -balls (joint with A.Koldobsky and A.Pajor)
3:30-3:50	Break	
3:50-4:20	Marina Yaskina	Non-intersection bodies all of whose central sections are intersection bodies
4:20-4:50	Aleksei Beltukov	Operator identities relating sonar and Radon transforms
4:50-5:20	Elena Ournycheva	Two spaces conditions for integrability of the Fourier transform (joint with E. Lifyand)

Afternoon Session Wednesday, January 3, Tureaud Hall 103, chair Darrin Speegle Wavelets and Related Topics		
Time	Speaker	Title
2:00-2:30	Morten Nielsen	On quasi-greedy uniformly bounded bases for $L_p([0, 1])$
2:30-3:00	Brody Johnson	Frame decomposition of principal shift-invariant spaces with rational dilations
3:00-3:30	Kenneth R. Hoover	Dimension functions of rationally dilated wavelets
3:30-3:50	Break, refreshments Tureaud Hall 105	
3:50-4:20	Shijun Zheng	Spectral calculus in function spaces and dispersive equations
4:20-4:50	Bradley Currey	Admissibility for Quasiregular Representations of Algebraic Solvable Lie Groups
4:50-5:20	McNamara	Explicit Construction of Representations for a Class of Nilpotent Lie Groups and their Application to Continuous Wavelets Transforms

Afternoon Session Thursday, January 4, Tureaud Hall 102, chair David Larson Wavelets and Related Topics		
Time	Speaker	Title
2:00-2:30	Keri Kornelson	IFSs with overlap: families of orthogonal exponentials and invariant measures, Part 1
2:30-3:00	Karen L. Shuman	IFSs with overlap: families of orthogonal exponentials and invariant measures, Part 2
3:00-3:30	Mihaela Dobrescu	TBA
3:30-3:50	Break, refreshments in Tureaud 105	
3:50-4:20	Nga Nguyen	Surgery and push-outs on frames
4:20-4:50	Myung-Sin Song	Entropy Encoding in Wavelet Image Compression

Afternoon Session Thursday, January 4, Tureaud Hall 103, chair Todd Quinto Integral Geometry and Related Topics		
Time	Speaker	Title
2:00-2:30	Zoltan I. Szabo	De Broglie geometry on Zeeman manifolds: A new non-perturbative approach to the infinities of QED (Review of the scalar theory)
2:30-3:00	Alex Iosevich	Incidence theory from discrete and analytical perspectives
3:00-3:30	Eric Grinberg	The Gauss-Bonnet-Grotemeyer Theorem in Spaces of Constant Curvature
10:10-10:30	Break, refreshments Tureaud Hall 105	
3:50-4:20	Leonid Slavin	Bellman function and a local Chang-Wilson-Wolff theorem
4:20-4:50	Bjoern Kjos-Hanssen	Some computably random series of functions

Joint session in room 103, chair Gestur Olafsson		
5:00-5:30	Carlos A. Berenstein	Internet tomography
5:30-	Round-table discussion and white paper	