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Twelfth New Mexico Analysis Seminar

Department of Mathematics and Statistics
University of New Mexico
Albuquerque
April 23-25, 2009

PROGRAM

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TWELFTH NEW MEXICO ANALYSIS SEMINAR
University of New Mexico, Albuquerque
April 23-25, 2009

Sponsored by NSF,
UNM School of Arts & Sciences, UNM Office of the Provost

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THURSDAY APRIL 23, 2009 - Room EDUC 101A

- *Coffee and cookies.*

3:20pm Official Opening.

3:30pm Loukas Grafakos, University of Missouri-Columbia
  Linear and Multilinear Singular Integrals I.

- *Coffee Break.*

- CONTRIBUTED TALKS SESSION A (ROOM EDUC 101A)

4:45pm Matthew Blair (Unviersity of New Mexico, Albuquerque, NM)
  Strichartz Estimates for the Schrödinger Equation in Exterior Domains.

5:15pm Liguang Liu (University of Missouri-Columbia)
  BLO-type spaces associated with the Ornstein-Uhlenbeck operator.

5:45pm Fayou Zhao (University of Missouri-Columbia)
  CBMO Estimates for Multilinear Hardy Operators.

6:15pm Cesar Garcia (New Mexico State University, Las Cruces/ITAM, Mexico)
  Variations on Ekeland's Variational Principle.

6:45pm Farid Madani (Pierre and Marie Curie University (Paris 6), France)
  Yamabe type equations.

- CONTRIBUTED TALKS SESSION B (ROOM EDUC 101)

4:45pm Yan Qiu (University of New Mexico, Albuquerque, NM)
  A non-linear Black-Scholes equation.

5:15pm María Pía Becca-Varela (New Mexico State University, Las Cruces, NM)
  Long correlations and Levy Models applied to the study of Memory effects in high frequency (tick) data.

5:45pm Ana Luz Vivas-Mejia (New Mexico State University, Las Cruces, NM)
  Existence of Solution to an Integro-Differential Parabolic Problem arising on Financial Mathematics.

6:15pm Emmanuel Ncheuguim (New Mexico State University, Las Cruces, NM)
  Non linear Black-Scholes option pricing models.

- *Meet at 7:30pm at Kelleys' on Central next to the Hiway House.*

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FRIDAY MORNING APRIL 24, 2009 - Room EDUC 101A

- *Coffee and goodies.*

- CONTRIBUTED TALKS SESSION C (ROOM EDUC 101A)

8:15am Lijing Sun (University of Wisconsin-Milwaukee)
Certain Oscillating Operator Related to Wave Equations in Block Spaces.

8:45am Marco Annoni (University of Missouri-Columbia)
Almost everywhere convergence of modified Bochner-Riesz means at the critical index.

9:15am Dmiter Vassilev (University of New Mexico, Albuquerque, NM)
Some interesting classes of quaternion functions.

9:45am Geraldo De Souza (Auburn University)
A new look on the Lorenz spaces $L(p,1)$ for $1 < p < \infty$, and applications.

10:15am Olena Ostapyuk (Kansas State University, Manhattan, KS)
Convergence of backward-iteration sequences with bounded hyperbolic step in higher dimension.

- *Coffee Break*

11:00am Loukas Grafakos, University of Missouri-Columbia
Linear and Multilinear Singular Integrals II.

- *Lunch Break*

FRIDAY AFTERNOON APRIL 24, 2009 - Room EDUC 101A

1:30pm Arpad Benyi, Western Washington University
Bilinear Pseudodifferential Operators: the Coifman-Meyer class and beyond.

2:40pm Diego Maldonado, Kansas State University
Paraproducts and the Bilinear Calderón-Zygmund Theory.

- *Coffee Break*

- CONTRIBUTED TALKS SESSION D (ROOM EDUC 101A)

4:15pm Wilfredo Urbina (De Paul University, Chicago, IL/Universidad Central de Venezuela)
Boundedness of Fractional Integrals and Fractional Derivatives on Gaussian Lipschitz spaces.

4:45pm Kabe Moen (Kansas University, Lawrence, KS)
Weighted Inequalities for multilinear fractional integral operators.

5:15pm Oleksandra Beznosova (University of Missouri-Columbia)
Linear bound on the norm of perfect dyadic operators on weighted Lebesgue spaces $L^2(w)$, with respect to the A_2-constant of the weight w.

5:45pm Daewon Chung (University of New Mexico, Albuquerque, NM)
On a linear bound for the commutator of the Hilbert transform on weighted Lebesgue space.

- Dinner on your own, some we'll go to the Pow Wow...

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- *Coffee and goodies.*

9:00am Loukas Grafakos, University of Missouri-Columbia
Linear and Multilinear Singular Integrals III.

- Contributed Talks Session E (Dane Smith Hall 123)

10:15am Oliver Thomys (Leipzig University, Germany)
On the Uniqueness of the Solution of the Capillary Problem in Porous Materials.

10:45am Dhanapati Adhikari (Oklahoma State University, Stillwater, OK)
Global Regularity Problem for the 2D Boussinesq Equations.

11:15am Ray Treinen (Kansas State University, Manhattan, KS)
Floating Drops and Functions of Bounded Variation.

11:45am Marc Salas (New Mexico State University, Las Cruces, NM)
Hydrodynamic Models for Charged Transport in Semiconductors.

- *Coffee/Snack Break*

12:30pm Pavlo Cherepanov (University of New Mexico, Albuquerque, NM)
Comparison of Shock Forming Properties of Continuum and Kinetic Models

12:55pm Xi (Ron) Chen(University of New Mexico, Albuquerque, NM)
Scattering from a lossless sphere

1:25pm Mohammed Qazi (Tuskegee University, Tuskegee, AL)
A Question Concerning a Polynomial Inequality and an Answer .

- THE END

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Organizers: Tiziana Giorgi (NMSU), Joseph Lakey (NMSU),
Cristina Pereyra (UNM), Robert Smits (NMSU).