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TENTH NEW MEXICO ANALYSIS  
SEMINAR

&

AN AFTERNOON IN HONOR TO  
MISCHA COTLAR

Department of Mathematics and  
Statistics

University of New Mexico

Albuquerque

October 11-12, 2007

*PROGRAM*

Sponsored by NSF  
College of Arts and Science, UNM  
Efroymsen Foundation

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TENTH NEW MEXICO ANALYSIS SEMINAR  
University of New Mexico, Albuquerque  
October 11-12, 2007

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THURSDAY MORNING OCTOBER 11, 2007 - DANE SMITH HALL 125

- *Coffee and cookies*

**8:30am** Alejandro Aceves, University of New Mexico

Chair, Department of Mathematics and Statistics

*Welcome to New Mexico*

John Gilbert, University of Texas at Austin, TX.

*Official Opening.*

**9:00am** Andrea Nahmod, University of Massachusetts, Amherst, MA.

**Minicourse A:** *Bilinear Operators in Analysis and PDEs.*

*Part I: Translation invariant smooth and nonsmooth bilinear multipliers.*

- *Coffee Break*

**10:45am** Rodolfo Torres, University of Kansas, Lawrence, KA.

**Minicourse A:** *Bilinear Operators in Analysis and PDEs.*

*Part II: Bilinear pseudo-differential operators: beyond Coifman-Meyer's theory.*

- *Lunch Break*

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THURSDAY AFTERNOON OCTOBER 11, 2007 - DANE SMITH HALL 125

**2:00pm** Rodrigo Bañuelos, Purdue University, West Lafayette, IN.

**Minicourse B:** *Martingales and Fourier multipliers. What is new in this old marriage? Part I.*

- *Coffee Break*

**3:30pm** Rodrigo Bañuelos, Purdue University, West Lafayette, IN.

**Minicourse B:** *Martingales and Fourier multipliers. What is new in this old marriage? Part II.*

- *Coffee Break*

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THURSDAY EVENING OCTOBER 11, 2007 - DANE SMITH HALL 125

**5:00pm** Jorge Rivera-Noriega, Universidad Autónoma del Estado de Morelos, Cuernavaca, México.

*A parabolic version of singular integrals on manifolds.*

**5:25pm** Terry Loring, University of New Mexico, Albuquerque, NM.

*Rényi dimension and Gaussian filtering.*

**5:50pm** Hung Lu, University of California, Riverside, CA.

*Nonarchimedean Cantor Set and String.*

**6:15pm** Scot Childress, University of California, Riverside, CA.

*Canonical products over the roots of certain Dirichlet polynomials.*

- *Food and beer at Kelley's.* Right next to the Hiway House on Central Avenue.

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FRIDAY MORNING OCTOBER 12, 2007 - DANE SMITH HALL 125

- *Coffee and goodies.*

**9:00am** Andrea Nahmod, University of Massachusetts, Amherst, MA.

**Minicourse A:** *Bilinear Operators in Analysis and PDEs.*

*Part III: The  $T(1,1)$ -theorem for modulation invariant bilinear singular operators.*

- *Coffee Break*

**10:45am** Oliver Dragičević, University of Ljubljana, Slovenia.

**Minicourse B:** *Martingales and Fourier multipliers. What is new in this old marriage? Part III.*

- *Lunch Break*

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FRIDAY OCTOBER 12, 2007 - DANE SMITH HALL 125

- *Coffee and cookies.*

**2:00pm** Cora Sadosky, Howard University, Washington, DC.  
*Remembering Mischa Cotlar.*

**2:40pm** Cora Sadosky, Howard University, Washington, DC.  
*Scattering Systems: some surprising connections*

**3:30pm** Sergei Treil, Brown University, Providence, RI.  
*Two weight estimates for the Hilbert Transform and rank one perturbations of self-adjoint operators.*

**4:20pm** *Coffee and cookies.*

**4:30pm** Carlos Berenstein, University of Maryland, College Park, MD.  
*From electrical impedance tomography to network tomography.*

**5:20pm** Carlos Kenig, University of Chicago, Chicago, IL.  
*Cotlar's lemma and its applications to pseudo-differential operators and partial differential equations.*

**6:30pm** Reception at the Student Union Building (SUB).

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**Organizers:** Tiziana Giorgi (NMSU), Joseph Lakey (NMSU),  
Cristina Pereyra (UNM), Adam Sikora (NMSU), Robert Smits (NMSU),  
Wilfredo Urbina (De Paul University/Universidad Central de Venezuela).