# Auburn University

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## College of Sciences and Mathematics

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**Twelfth Auburn Mini-Conference on
Harmonic Analysis and Related Areas**

**Friday and Saturday, December 15-16, 1995
Sponsored by NSF**

Friday morning 8:30 - 9:00 Coffee, Doughnuts, Registration, Information -
Parker Hall 244

### Friday Morning Session - Parker Hall 217

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| 9:00 - 9:10 | Opening Remarks |
| 9:10 - 9:30 | **Yibiao Pan** - Univ. of Pittsburgh<br>Boundedness of Singular Integrals<br>with rough Kernels. |
| 9:40 - 10:00 | **Songying Li** - Washington University<br>Hardy Space and boundary value problems<br>of Laplacian. |
| 10:10 - 10:30 | **Carlos Handy** - Clark University<br>Multiscale Analysis of Eigenvalue/Function<br>Problems for linear ODE's and PDE's. Through<br>Novel Moment problem Methods - Extension<br>to Wavelet Analysis of Quantum Problems. |
| 11:10 - 12:00 | **Richard O'Neil** - SUNY<br>On a Theorem of Hardy - Littlewood. |
| 12:00 - 1:30 | Lunch Break |

### Afternoon Session - Parker Hall 217

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| 1:30 - 1:50 | **Joseph Lakey** - New Mexico State University<br>Constructive decomposition of BMO. |
| 2:00 - 2:20 | **Mike Pearson** - Mississippi State University<br>A Logarithmic Sobolev Inequality on the<br>real line. |
| 2:30 - 2:50 | **Shiying Zhao** - Missouri State Univ.<br>Wavelet Sampling and Localization<br>Schemes for The Radon Transforms<br>in Two Dimension. |
| 3:00 - 3:20 | **Pawel Szeptycki** - University of Kansas<br>Invariant Subspaces of The Maximal Domain<br>of The Fourier Transform. |
| 4:10 - 5:00 | **Richard Wheeden** - Rutgers University<br>Some recent results related to weighted norm<br>estimates for singular and fractional<br>Integrals. |
| 6:00 - 9:00 | Picnic at Pebble Hill (Mexican Fajitas and<br>and Brazilian feijoada) |

## Saturday Morning Session – Parker Hall 217

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| 8:30 – 9:00 | Coffee, Doughnuts (Parker Hall 244) |
| 9:00 – 9:20 | **Guo Kanghui** – Southwest Missouri St. Univ. On The spectral synthesis property of plane curves |
| 9:30 – 9:50 | **Peter Knopf** – Pace University Projections Theorems for harmonic measure in Lipschitz domain. |
| 10:00 – 10:20 | **Murali Rao** – University of Florida An Inverse Problems for elliptic equations |
| 10:30 – 10:50 | **Xinwei Li** – Washington University Riesz Transforms on spheres |
| 11:10 – 12:00 | **Archil Gulisashvili** – Cornell University Rearrangement of functions on locally compact Abelian group and integrability of Fourier Transform. |

## Saturday Afternoon Session: – Parker Hall 217

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| 12:00 – 1:30 | Lunch Break |
| 1:30 – 1:50 | **Guozhen Lu** – Wright State University Fefferman – Phong Type Inequality |
| 2:00 – 2:20 | **Xiangsheng Xu** – Mississippi State Univ. Local Holder Continuity of weak solutions to a class of degenerate Elliptic Systems |
| 2:30 – 2:50 | **Robert Smith** – Mississippi State Univ. A sufficient condition for Bishop's Property (B) |
| 3:10 – 4:00 | **Richard Wheeden** – Rutgers University Continued |
| 4:30 – | University vans carrying participants to Atlanta leave Parker Hall – Saturday evening we will carry interested participants to (Dutch – Treat) Dinner in Atlanta |