Auburn University, Alabama 36849-5310

College of Sciences and Mathematics

Department of Mathematics 221 Parker Hall

FAX: (334) 844-4290 FAX: (334) 844-6555

SEVENTH AUBURN MINICONFERENCE ON REAL ANALYSIS

Friday and Saturday, Oct. 26-27, 1990

Sponsored by NSF

Friday Morning 8:30-8:55 Coffee, Doughnuts, Registration, Information (Parker Hall 244).

FRIDAY MORNING SESSION (Real Functions and Integration): Parker Hall 217

9:00-9:20, Opening remarks, Jack Brown, Auburn University.

9:25-9:45, Richard J. O'Malley, Univ. of Wisconsin - Milwaukee, "First return path derivatives".

9:50-10:10, Krzystof Ciesielski, W. Virginia Univ., "Density and I-density continuous functions".

10:15-10:35, Mike Evans, North Carolina State Univ., "Monotonicity, porosity and dimension".

10:40-11:00, Sandra Meinershagen, Northwest Missouri State Univ., "Upper and lower bounds for the packing measure".

11:05-11:25, James Foran, Univ. of Missouri - Kansas City, "On equating the Perron an Riemann complete integrals".

11:30-11:50, George Cross, Univ. of Waterloo, "Integration by parts formula for the SCP-integral".

Lunch	(Dutch	Treat).	

FRIDAY AFTERNOON SESSION (Harmonic, Complex, PDEs): Parker Hall 217

1:30-1:50, David McMichael, Florida State Univ., "A restriction theorem for degenerate hypersurfaces".

1:55-2:15, Gary Sampson, Auburn University, "A characterization of all integral operators with regular kernels that map the special atom space, B, into itself".

2:20-2:40, James T. Campbell, Memphis State Univ., "Semi-normal composition operators on L^2 ".

2:45-3:05, Geraldo De Souza, Auburn University, "Compositions operators on Dirichlet spaces" (with Oscar Blasco).

3:10-3:30, Jose Barrionuevo, Univ. of South Alabama, "Estimates for some Kakeya-type maximal operators".

3:30-4:05, Refreshment Break (Parker Hall 244)

Lecture in Parker Hall 217 (or 319 if necessary):

4:10-5:00, Walter Rudin, University of Wisconsin,

"Riemann sums of measurable functions".

6:00-9:00 Mexican fajitas and Brazilian feijoada at Pebble Hill.

Saturday Morning 9:00-9:30 Coffee, Doughnuts (Parker Hall 244).

ACT Exam is being given in Parker, so we'll try not to disturb them.

SATURDAY MORNING SESSION I (Complex, Harmonic, PDEs): Parker Hall 213

9:35-9:55, Ted Kilgore, Auburn Univ., "Interpolation and simultaneous approximation".

10:00-10:20, Andrzej Szymanski (with W. Lindgren), Slippery Rock Univ., "Projectively solid sets and Piccard's theorem".

10:25-10:45, Paul Schmidt, Auburn Univ., "Reaction-diffusion systems for climate modeling".

10:50-11:10, Iwo Labuda, Univ. of Mississippi, "On the Orlicz-Pettis Theorem".

11:15-11:35, Frank Uhlig, Auburn University, "Are the coefficients of a polynomial well-conditioned functions of its roots?"

SATURDAY MORNING SESSION II (Topological and Set-theoretic) Parker Hall 217

9:35-9:55, Sam Young, Auburn University, "Continuous functions on the interval which have conjugates near the identity".

10:00-10:20, Jerry Gibson, Columbus College (GA), "On characterizing continuity"

10:25-10:45, Harvey Rosen, Univ. of Alabama, "Quasi-components of preimages of any connectivity function $I^2 \rightarrow R$ ".

10:50-11:00, Ireneusz Reclaw, Univ. Gdansk (visiting Auburn), "Spaces not distinguishing pointwise and quasinormal convergence of real functions".

11:15-11:35, Kyle Bozeman, Univ. of North Texas, "On the relationship between weak density and density in Boolean algebra".

11:40-12:50 Lunch (Dutch Treat).

Lecture in Parker Hall 217 (or 319 if necessary):

1:00-1:50, Mary Ellen Rudin, Uiversity of Wisconsin

"Monotone Normality"

2:00 Group Picture to be taken in front of Parker Hall,

Coffee break

SATURDAY AFTERNOON SESSION I (Set Theoretic and Topological): Parker Hall 217

2:15-2:35, Richard Stevens, Western Carolina Univ., "Some questions concerning barely continuous functions".

2:40-3:00, Ken Kellum, San Jose State Univ., "Concerning an unpublished result of Hugh Miller".

3:05-3:25, Krystyna Kuperberg, Auburn Univ., "Modified Seifert's conjecture".

2:30-3:50, Gene Worth, Georgia State Univ., "On topologies for the space of Henstock-integrable functions".

SATURDAY AFTERNOON SESSION II (Real and Functional Analysis): Parker Hall 213

- 2:15:-2:35, Patrick Reardon, Auburn University, "The density topology and Marczewski-measurable sets" (with Udayan Darji).
- 2:40-3:00, Udayan Darji, Auburn University, "Functions with perfect roads at each point and the Sierpinski-Zygmund function".
- 3:05-3:25, Tarcisio Pereira, State Univ. of Maringa Brazil, "Interpolation setting of an inequality of Littlewood and Hardy".
- 3:30-3:50, M. Rajagopalan, Tennessee State Univ., "A short proof for nonseparability of the maximal ideal of ${\bf L}^{2}$ ".
- 4:15: University van carrying participants to Atlanta leaves Parker Hall. Saturday evening we will carry interested participants to downtown Atlanta for (Dutch-treat) dinner.