LECTURES IN HARMONIC ANALYSIS
IN HONOR OF PROFESSOR STEPHEN WAINGER

March 5, 2011, B139 Van Vleck Hall

Schedule of lectures

9:30 a.m. **Elias M. Stein** (Princeton University)
The adventures of Stephen Wainger

11:00 a.m. **Alexandru Ionescu** (Princeton University and UW)
On the global regularity of energy critical dispersive equations in non-euclidean backgrounds

Abstract: I will discuss some recent work with Benoit Pausader and Gigliola Staffilani on global well-posedness of certain energy critical dispersive models on manifolds. We will consider two examples: the defocusing energy critical NLS on the hyperbolic space H^3 and the semiperiodic defocusing energy critical NLS on $\mathbb{R} \times \mathbb{T}^3$.

2:00 p.m. **Ákos Magyar** (University of British Columbia)
Discrete analogues in harmonic analysis and some applications.

Abstract: Discrete analogues of problems in harmonic analysis arise when the underlying Euclidean space is replaced by the set of integer points. In such problems properties of exponential sums play a crucial role, hence they are more of arithmetical nature and in turn have implications in other fields, such as number theory, ergodic theory and arithmetic Ramsey theory. We will discuss some problems and recent results in this area.

3:15 p.m. **James Wright** (University of Edinburgh)
Maximal functions along convex curves in the plane: L^2-estimates

Abstract: A basic result in this topic states that the maximal function is bounded on L^2 if the so-called h-functional has the doubling property. We explore to what extent L^2-boundedness holds under weaker conditions.