## ANALYSIS SEMINAR

## Rational approximation and inverse problems

## Laurent Baratchart

Department of Mathematics, Vanderbilt University

Monday, October 19, 2009 at 2:00 pm in Hume 331  $\,$ 

**Abstract:** Given a function analytic in the plane except for finitely many branch points in the unit disk, we consider its best rational approximant of given degree in  $L^2$  of the unit circle. We analyze the behavior of the poles of the approximant when its degree goes large, and discuss how it can be used to approach certain inverse source problems for the Laplacian.