

THIS QUESTIONNAIRE IS NOT REQUIRED. IT IS ONLY A WAY FOR STUDENTS, FACULTY AND MATH CLUB MEMBERS TO GET A GLIMPSE OF YOUR BACKGROUND AND ACHIEVEMENTS. THIS CAN ONLY BE VIEWED ON THE NEW MATH CLUB WEBSITE WHICH WILL BE UPDATED WEEKLY AND WILL NOT BE POSTED AROUND CAMPUS ON THE FLYERS. THE **RED TYPE** IS ALL THAT IS MANDATORY (THIS WILL GO ON THE FLYERS SO STUDENTS WILL KNOW WHO IS SPEAKING AND ABOUT WHAT). DON'T ANSWER ANY QUESTIONS YOU FEEL UNCERTAIN ABOUT ANSWERING. THANK YOU FOR YOUR TIME AND I LOOK FORWARD TO YOUR UPCOMING SPEECH!

*Justin Pennino, President*

## 2010 Math Club Questionnaire

**Name:** Will Orrick

**Hometown:**

**Experience:** After receiving my doctorate in physics from Stony Brook, I worked as a postdoc in Melbourne and Bordeaux before coming to IU. I am interested in statistical physics and quantum field theory, and also in combinatorial designs, error-correcting codes, and Hadamard matrices.

**Subjects Taught at IU:**

**Undergraduate School:**

**Graduate School:**

**\*Name of your speech or what you will be speaking about:**

Rogers-Ramanujan Identities

The starting point for this talk is the problem of counting integer partitions, which goes back at least to Euler and Jacobi of a positive integer is a way of writing it as a sum of positive integers. We can impose restrictions on the integers that may be used---for example, by requiring that they be odd, or that they be distinct. Sometimes we find that different restrictions lead to the same count. When this happens, amazing mathematical identities result, of which Euler's triple product identity and the Rogers-Ramanujan identities are famous examples. The story continues into the present, where the identities reemerge in problems of mathematical physics.

**Interesting fact about yourself:**

**Favorite Type of Pizza:**