



# YMC 2006



## Young Mathematicians Conference 2006

*August 4<sup>th</sup>-6<sup>th</sup> at The Ohio State University.*

### QUASI.PY: A VISUALIZATION OF QUASICRYSTALS IN PC CLUSTER BASED VIRTUAL ENVIRONMENTS

**Matthew Y Gregory**

*University of Illinois at Urbana-Champaign* [Mentor: George Francis]

**Abstract of Poster Prestation:** This collaboration with Tony Robbin realizes his 3D quasicrystal artwork in a fully immersive PC cluster-based distributed graphics system (Syzygy). We continue previous work by Adam Harrell, who realized DeBruijn's first method of projecting selected cells in a 6D lattice to 3D, and Mike Mangialardi's incomplete realization of DeBruijn's dual method in a Python script for Syzygy. Our project corrects errors in the previous projects and will provide a tool for Robbin to design new quasicrystal installations in virtual environments such as the CUBE and CANVAS at the UIUC. [GM07141836]

[Joint work with George Francis, Tony Robbin]

Contact: mgregor2@uiuc.edu

Received: July 21, 2006