

IT'S ALL ABOUT MATH!

An ongoing series hosted by
The Department of Mathematics

Geometry in Music

with

Dr. Purnaprajna Bangere

It has long been known that there is a deep connection between mathematics and music. In this talk, Purnaprajna shows how modern algebraic geometry sheds light on the connection between different genres of music. He develops a meta-geometric framework for a music that integrates elements of Indian and western classical music, jazz, and the blues. The talk is accessible to a general audience.

“The study of the overtone series is well known as a foundational point of origin among western musicians who are drawn to explore the cross-civilizational integration of Indian classical music. Based on the work of Herman Helmholtz in the 1850s and further elucidated for the modern era with specific application for musicians by W.A. Mathieu’s book, *Harmonic Experience*, this fundamental theoretical basis led to the creation of the Turtle Island String Quartet in 1985. When Prof. Purnaprajna approached me with the idea of working together on his Meta Raga system, I immediately realized its potential. I further perceived clear congruities in his theoretical framework to not only the approach taken in W.A. Mathieu’s book, but also the work of western music giants such as Arnold Schoenberg and John Coltrane. The collaboration has yielded a finished composition, as well as others in progress.”

-David Balakrishnan,
Director of the Turtle Island String Quartet,
multi Grammy award winner



Thursday March 9, 4PM

**Bahen Centre for Information
Technology, Room 1170**

40 St. George Street, Toronto



Mathematics

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