



DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

## Colloquium

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KASHIWARA CRYSTALS IN ENDOSCOPY

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IAS

**ABSTRACT:**

I will explain a combinatorial analogue of the fundamental lemma from Langlands' endoscopy theory, called the asymptotic fundamental lemma. It is one of the new features in my recent proof of the fundamental lemma for spherical Hecke algebras, which was not present in its Lie algebra analogue originally proved by B.C. Ngo. I will explain how it is related to Kashiwara crystals from representation theory and why it may be promising to study in a broader context like Langlands functoriality. The talk is meant to be accessible.

4 – 5pm

Wednesday, April 17, 2024

Room 204, Smith Hall