



## Department of Mathematics

### Theorem A Month

A seminar series for UG and PG students

# Fermat's Last Theorem for $n=4$

By

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### Abstract

Finding integer solutions to diophantine equations (i.e. equations with integer coefficients) is a central topic in number theory. A basic example of such an equation is  $X^2 + Y^2 = Z^2$  which we all see in high school while learning Pythagorus' theorem. In this talk, we will discuss equations of the form  $X^n + Y^n = Z^n$ , where  $n$  is a natural number, and prove that there are no non-trivial integer solutions to the equation  $X^4 + Y^4 = Z^4$ . No prior background will be assumed in this talk.

- ✓ Date: 19th July 2025
- ✓ Time: 11.45 AM to 12.45 PM
- ✓ Venue: NR – 009
- ✓ Registration is mandatory

Scan / click the QR code to register:

