



Infosys Lecture series

## Lambda-adic forms

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Abstract:

Modular forms are holomorphic functions on the upper-half complex plane with many symmetries. These analytic objects have been studied classically for their own sake by several mathematicians and especially by Shimura, and have many applications to number theory problems. On the other hand, Iwasawa studied the variation of the  $p$ -part of the class groups of cyclotomic fields algebraically for  $p$  a prime. Hida had the deep insight that these two disparate themes in number theory can be combined. He defined and studied  $p$ -adic families of modular forms, more formally known as Lambda-adic forms. These lectures will be an introduction to these forms, leading up to the construction of their Galois representations.

Date: April 24 – April 27, 2024

Time: 10 am – 11:15 am

Venue: HRI Auditorium

