# 九大代数学セミナー

日時 2024 年 10 月 4 日 (金) 16:00-17:00

場所 九州大学伊都キャンパス ウエスト 1 号館 5 階 C-513 中講義室,
および Zoom ミーティングによるオンライン開催

* * *

講演者 Vaidehee Thatte 氏 (King's College London)

題目 **Ramification Theory for Henselian Valued Fields**

概要 Ramification theory serves the dual purpose of a diagnostic tool and treatment by helping us locate, measure, and treat the anomalous behavior of mathematical objects. In the classical setup, the degree of a finite Galois extension of "nice" fields splits up neatly into the product of two well-understood numbers (ramification index and inertia degree) that encode how the base field changes. In the general case, however, a third factor called the defect (or ramification deficiency) can pop up. The defect is a mysterious phenomenon and the main obstruction to several long-standing open problems, such as obtaining resolution of singularities. The primary reason is, roughly speaking, that the classical strategy of "objects become nicer after finitely many adjustments" fails when the defect is non-trivial. I will discuss my previous and ongoing work in ramification theory that allows us to understand and treat the defect.

* * *

世話人：小林 真一, Ade Irma Suriajaya, 松坂 俊輝, 埴原 紀宏 (九大数理)