TOPICS IN GALOIS COHOMOLOGY

Venue and Class Timings: TBA

• **Instructor:** Sujatha Ramdorai
Email id: sujatha@math.ubc.ca
Office: Math Annex 1201

• **Course Description:** This is meant to be an introductory course in Galois Cohomology with the larger aim of understanding it's connections to Toplogy, Number Theory and other fields of Mathematics. Basic definitions, properties and techniques will be covered in detail. The goal of this course to show students how Galois Cohomology intervenes in Class Field Theory and more generally in Arithmetic Geometry.

• **Suggested Readings:** I plan to follow some old TIFR notes prepared by Parimala and Sridharan. Other books that I plan to use are Algebraic Number Theory by Jurgen Neukirch and Algebraic Number Theory by Cassels and Frohlich.

• **Prerequisites:** The main prerequisites for this course are a basic introductory course in Commutative Algebra (Math 423/502 or equivalent) and a course in point set topology (Math 426 or equivalent).

• **Evaluation**: Beyond the first few lectures this will be a student-led-seminar based reading course. Students will be evaluated on the quality of the lectures they deliver. Students might be asked to present solutions of exercises given to them.