Number Theory & Combinatorics Seminar

Mathematics & Computer Science

Weekly Seminar

Shimura-Taniyama conjecture/modularity theorems—an overview

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Abstract:

Shimura-Taniyama conjecture (now known as modularity theorem) states that all rational elliptic curves are modular. Despite its technical sounding statement, this conjecture became famous due to its application to Fermat's last theorem. Thanks the work of Wiles and others, not only we know that all rational elliptic curves are modular, we also know that many other generalizations (for example, Q-curves) are also modular. However, what do we mean by "all rational elliptic curves are modular", and how would one go about proving such a statement?

In this talk I will explain what we mean by modularity of an elliptic curve using Galois representation, and provide some (a.k.a. epsilon amount) hint on how one can prove the modularity theorems.

Monday—21 January 2013

Room: E575

Time: 12:00—12:50 pm

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http://www.cs.uleth.ca/~nathanng/ntcoseminar/

EVERYONE IS WELCOME!