Lectures on Hilbert modular varieties

Description:

Hilbert modular varieties are the moduli spaces of abelian varieties with multiplication by an order in a totally real number field and generalize modular curves. They provide beautiful examples of algebraic varieties that display fascinating connections to number theory. The course intends to give a survey of the theory with special attention to the case of Hilbert modular surfaces. The course will signalize open problems and research challenges.