

## **abstract**

JOINT IAS/PU NUMBER THEORY

Topic:

Speaker:

Affiliation:

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In a seminal Inventiones 1976 paper, Hirzebruch and Zagier produced a set of cycles on certain Hilbert modular surfaces whose intersection numbers are the Fourier coefficients of elliptic modular forms with nebentypus. Their result can be viewed as a geometric manifestation of the Naganuma lift from elliptic modular forms to Hilbert modular forms. We discuss a general analogue of this result where the real quadratic extension is replaced by an arbitrary quadratic extension of totally real fields. Our result can be viewed as a geometric manifestation of quadratic base change for  $GL_2$  over totally real