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Arithmetic cycles for unitary groups

In this talk, I will discuss some recent work with Rapoport on arithmetic cycles for Shimura varieties associated to $U(n-1, 1)$. In particular, we establish a relation between the arithmetic degrees of certain 0-cycles and the nonsingular, nondegenerate Fourier coefficients of the derivatives of certain incoherent Eisenstein series on $U(n, n)$. If time permits, I plan to discuss various low dimensional examples and some explicit formulas for local height contributions.