

BOSTON UNIVERSITY NUMBER THEORY SEMINAR

Computing weight 1 forms — a p -adic approach

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Monday, February 11 at 4:15 pm
111 Cummington Mall, MCS B21
Tea and cookies in MCS 144 at 4:00 pm

Abstract: The computation of Hecke-eigenforms of weight at least 2 is readily accomplished through the theory of modular symbols as these Hecke-eigensystems occur in the cohomology of modular curves. However, the same is not true for weight 1 modular forms which makes computing the dimensions of such spaces difficult let alone the actual system of Hecke-eigenvalues. Recently effective methods for computing such spaces have been introduced building on an algorithm of Kevin Buzzard. In this talk, we present a different, p -adic approach towards computing these spaces. This is a joint project with Jon Hanke.