1046-11-804   **Riad Masri*** (`masri@math.wisc.edu`), Department of Mathematics, University of Wisconsin, Madison, WI 53706, and **Amanda Folsom**. *Non-harmonic weak Maass forms and arithmetic geometry.* Preliminary report.

The theory of harmonic weak Maass forms, developed by Bruinier, Ono, Yang, and their collaborators, has been revealed to have profound connections with arithmetic geometry. Less attention has been paid to non-harmonic weak Maass forms. In this talk, I will explain the connection between a certain non-harmonic weak Maass form, arithmetic geometry, and a classical problem in number theory. This is joint work with Amanda Folsom. (Received September 11, 2008)

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