

SCHOLAR
UNE CÉLÉBRATION SCIENTIFIQUE SOULIGNANT LES LIGNES OUVERTES DE LA RECHERCHE MATHÉMATIQUE EN
L'HONNEUR DE L'HÉRITAGE MATHÉMATIQUE DU P^R M. RAM MURTY À L'OCCASION DE SON 60^E ANNIVERSAIRE
15 AU 17 OCTOBRE 2013

SCHOLAR
A SCIENTIFIC CELEBRATION HIGHLIGHTING OPEN LINES OF ARITHMETIC RESEARCH IN
HONOUR OF PROFESSOR M. RAM MURTY'S MATHEMATICAL LEGACY ON HIS 60TH BIRTHDAY
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Tensor products of Galois representations

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Tensor products of Galois representations arise naturally in the study of the Hasse–Weil zeta function of a product of curves (or abelian varieties) defined over a number field. In the case of a product of two modular curves, their L -functions are closely related to the Rankin convolutions of modular forms.

In this lecture I will discuss some questions and conjectures which are closely related to Tate's conjecture on codimension 2 cycles on product varieties. Moreover, I will discuss what happens in the case of a product of modular abelian varieties.

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