ANDREY NOVOSELTSEV, University of Alberta

Hodge numbers of Calabi-Yau complete intersections

(Joined work with Charles F. Doran.) We report on recent progress in computation of the (stringy) Hodge numbers of Calabi-Yau complete intersections in toric varieties. In 1994 Batyrev has obtained simple combinatorial expressions for some of the Hodge numbers of anticanonical hypersurfaces in resolutions of Fano toric varieties. In 1996 Batyrev and Borisov have obtained a recursive formula for the generating function of all Hodge numbers of Calabi-Yau complete intersections associated to nefpartitions. We have used this function to obtain for complete intersections Y of codimension two combinatorial expressions for $h_{st}^{p,1}(Y)$ which are analogus to the hypersurface case.