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Nero Budur* (nbudur@nd.edu). *Cohomology jump loci of local systems.*

Cohomology jump loci of smooth complex quasi-projective varieties have a rigid arithmetic structure. This is a joint result with Botong Wang. We will also present a conjectural interpretation of cohomology support loci via Bernstein-Sato ideals which would immediately provide implemented algorithms to compute these loci. This interpretation is a generalization of the classical result of Malgrange and Kashiwara relating Milnor monodromy of hypersurfaces with classical Bernstein-Sato polynomials. (Received February 01, 2013)