1108-14-219   **Yuchen Zhang***, Mathematics Department, 2074 East Hall, 530 Church Street, Ann Arbor, MI 48109. *A generic vanishing theorem on Cartier modules.*

The generic vanishing theorem by Green and Lazarsfeld is the main tool in studying the geometry of varieties of maximal Albanese dimension. The theorem was generalized by Hacon, Pareschi and Popa using a derived category approach. Although the theorem is still valid in positive characteristic, one can not apply it to $R^i a_* \omega_X$ due to the failure of vanishing theorems. We will talk about a possible generalization of generic vanishing theorem in the context of Cartier modules, which is a joint work with A. Watson. (Received January 14, 2015)