1145-13-1446 **Alessandra Costantini*** (costanta@purdue.edu). *Cohen-Macaulayness of Rees algebras of modules.* Preliminary report.

Rees algebras of ideals and modules arise in Algebraic Geometry as homogeneous coordinate rings of blow up or as graphs of rational maps. The Cohen-Macaulayness of the Rees algebra of an ideal I is well-understood in connection with the Cohen-Macaulayness of the associated graded ring of I, thanks to results of Huneke, Trung and Ikeda. However, there is no module analogue for the associated graded ring, so the study of Cohen-Macaulayness of Rees algebras of modules is in general more complicated. In this talk we will present the technique of generic Bourbaki ideals introduced by Simis, Ulrich and Vasconcelos, and use it to provide sufficient conditions for the Rees algebra of a module to be Cohen-Macaulay. Our results generalize results of Johnson and Ulrich, and of Goto, Nakamura and Nishida. (Received September 21, 2018)