Interconnections: Copper and Low K Dielectrics -
lifetime optimisation by improvement of electromigration understanding

Giulio MARTI

Supervisors: Yves Wouters and Lucile Arnaud (CEA-LETI)
Co-tutors: David Ney et Xavier Federspiel (STMicroelectronics)

Friday, December 2nd – 2:00 pm

Amphitheater André Rassat – UFR Chimie

Abstract: "The objective of the manuscript is to investigate the CMOS 28 nm technology regarding electromigration (EM) failure in interconnections. In order to cover the full range of failure development, several experimental characterizations, and simulation with the numerical model implemented on the software COMSOL have been carried out. This accomplishment is the basis for the EM failure assessment of interconnects structure also taking "voiding" into account. In conclusion, this project has allowed improving the reliability evaluation of interconnections"