HOMOTOPICAL ALGEBRAIC GEOMETRY AND GLOBAL DERIVED MODULI SPACES

GABRIELE VEZZOSI

Joint work with B. Toen (Toulouse). We will show how to develop an algebraic geometry whose affine objects are commutative ring spectra (studied in stable homotopy theory), commutative differential graded algebras, commutative simplicial rings, etc., in a way that takes into account the "homotopy theory" underlying these objects.
In particular we will describe (with examples) the case of derived algebraic geometry for which the general theory provides tools to construct and study global versions of derived moduli spaces.

Dipartimento di Matematica, Università di Bologna, 40127 Bologna, Italy
E-mail address: vezzosi@dm.unibo.it