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Nota di contenuto	$C[\infty]$ -rings -- The $C[\infty]$ -ring $C[\infty](X)$ of a manifold X -- $C[\infty]$ -ringed spaces and $C[\infty]$ -schemes -- Modules over $C[\infty]$ -rings and $C[\infty]$ -schemes -- $C[\infty]$ -stacks -- Deligne-Mumford $C[\infty]$ -stacks -- Sheaves on Deligne-Mumford $C[\infty]$ -stacks -- Orbifold strata of $C[\infty]$ -stacks.
Sommario/riassunto	"If X is a manifold then the R -algebra $C[\infty](X)$ of smooth functions $C : X \rightarrow R$ is a $C[\infty]$ -ring. That is, for each smooth function $f : \mathbb{R}^n \rightarrow R$ there is an n -fold operation $[\Phi]f : C[\infty](X)^n \rightarrow C[\infty](X)$ acting by $[\Phi]f : (c_1, \dots, c_n) \rightarrow f(c_1, \dots, c_n)$, and these operations $[\Phi]f$ satisfy many natural identities. Thus, $C[\infty](X)$ actually has a far richer structure than the obvious R -algebra structure. We explain the foundations of a version of algebraic geometry in which rings or algebras are replaced by $C[\infty]$ -rings. As schemes are the basic objects in algebraic geometry, the new basic objects are $C[\infty]$ -schemes, a category of geometric objects which generalize manifolds, and whose morphisms generalize smooth maps. We also study quasicoherent sheaves on $C[\infty]$ -schemes, and $C[\infty]$ -stacks, in particular Deligne-Mumford $C[\infty]$ -stacks, a 2-category of geometric objects generalizing orbifolds. Many of these ideas are not new: $C[\infty]$ -rings and $C[\infty]$ -schemes have long been part of synthetic differential geometry. But we develop them in new directions. In Joyce (2014, 2012, 2012 preprint), the author uses these tools to define d -

manifolds and d-orbifolds, 'derived' versions of manifolds and orbifolds related to Spivak's 'derived manifolds' (2010)"--
