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Abstracts of Short Communications and Posters

Section:

4. Algebraic Geometry

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A Nullstellensatz for Pro-Affine Algebras

With a view toward application to the *Jacobian Problem*, a theory of *pro-affine algebras* and *ind-affine varieties* has been presented in my paper, *J. Alg.* **185**(1996), 481–501. Let $A = \lim_{\leftarrow} A_i$ be a pro-affine K-algebra with K algebraically closed, and assume all A_i to be of finite type over K. Define the *radical* $\mathfrak{R}(A)$ and the *nilradical* $\mathfrak{N}(A)$ of A, *resp.* , to be the intersections of all *open maximal* ideals and of all *open prime* ideals of A, *resp.* We can then prove

Theorem. $\mathfrak{R}(A) \quad = \quad \mathfrak{N}(A)$.

A more complete theory of pro-affine algebras and ind-affine schemes, including the above and a localization theory, will be published elsewhere.