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On the dbar-equation on a pure-dimensional analytic space.
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Let X be a, possibly not reduced, analytic space of pure dimension n. I will discuss intrinsic notions of smooth forms, currents and the dbar-equation on X. I will indicate how one, by means of integral formulas, under suitable conditions on the right hand side can solve the dbar-equation. In this way, one can also define fine sheaves A_k of $(0,k)$-currents, $k = 0, \ldots, n$, that admit a resolution of the structure sheaf $\mathcal{O}^X$. The sheaves A_k coincide with the sheaves of smooth forms generically on X; more precisely, where the underlying reduced space is smooth and $\mathcal{O}^X$ is Cohen-Macaulay. This is a joint work, in progress, with Richard Larkang.