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Titolo	$C^\infty$ - Differentiable Spaces [[electronic resource] /] / by Juan A. Navarro González, Juan B. Sancho de Salas
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Note generali	Includes index.
Nota di contenuto	Introduction -- 1. Differentiable Manifolds -- 2. Differentiable Algebras -- 3. Differentiable Spaces -- 4. Topology of Differentiable Spaces -- 5. Embeddings -- 6. Topological Tensor Products -- 7. Fibred Products -- 8. Topological Localization -- 9. Finite Morphisms -- 10. Smooth Morphisms -- 11. Quotients by Compact Lie Groups -- A. Sheaves of Fréchet Modules -- B. Space of Jets -- References -- Index.
Sommario/riassunto	The volume develops the foundations of differential geometry so as to include finite-dimensional spaces with singularities and nilpotent functions, at the same level as is standard in the elementary theory of schemes and analytic spaces. The theory of differentiable spaces is developed to the point of providing a handy tool including arbitrary base changes (hence fibred products, intersections and fibres of morphisms), infinitesimal neighbourhoods, sheaves of relative differentials, quotients by actions of compact Lie groups and a theory of sheaves of Fréchet modules paralleling the useful theory of quasi-coherent sheaves on schemes. These notes fit naturally in the theory of $C^\infty$ -rings and $C^\infty$ -schemes, as well as in the framework

of Spallek's  $C^\infty$ -standard differentiable spaces, and they require a certain familiarity with commutative algebra, sheaf theory, rings of differentiable functions and Fréchet spaces.

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