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Nota di bibliografia	Includes bibliographical references (pages [129]-132) and index.
Nota di contenuto	Introduction -- Notions from homological algebra: Derived Functors; The category of locally convex spaces -- The projective limit functor for countable spectra: Projective limits of linear spaces; The Mittag-Leffler procedure; Projective limits of locally convex spaces; Some Applications: The Mittag-Leffler theorem; Separating singularities; Surjectivity of the Cauchy-Riemann operator; Surjectivity of P(D) on spaces of smooth functions; Surjectivity of P(D) the space of distributions; Differential operators for ultradifferentiable functions of Roumieu type -- Uncountable projective spectra: Projective spectra of linear spaces; Insertion: The completion functor; Projective spectra of locally convex spaces -- The derived functors of Hom: Ext _k in the category of locally convex spaces; Splitting theory for Fréchet spaces; Splitting in the category of (PLS)-spaces -- Inductive spectra of locally convex spaces -- The duality functor -- References -- Index.
Sommario/riassunto	The text contains for the first time in book form the state of the art of homological methods in functional analysis like characterizations of the

vanishing of the derived projective limit functor or the functors $\text{Ext}^1(E, F)$ for Fréchet and more general spaces. The researcher in real and complex analysis finds powerful tools to solve surjectivity problems e. g. on spaces of distributions or to characterize the existence of solution operators. The requirements from homological algebra are minimized: all one needs is summarized on a few pages. The answers to several questions of V.P. Palamodov who invented homological methods in analysis also show the limits of the program.
