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REPRESENTATIONS OF TOPOLOGICAL ALGEBRAS BY PROJECTIVE LIMITS

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ABSTRACT. It is shown that a) it is possible to define the topology of any topological algebra by a collection of F -seminorms, b) every complete locally uniformly absorbent (complete locally A -pseudoconvex) Hausdorff algebra is topologically isomorphic to a projective limit of metrizable locally uniformly absorbent algebras (respectively, A -(k -normed) algebras, where $k \in (0, 1]$ varies, c) every complete locally idempotent (complete locally m -pseudoconvex) Hausdorff algebra is topologically isomorphic to a projective limit of locally idempotent Fréchet algebras (respectively, k -Banach algebras, where $k \in (0, 1]$ varies) and every m -algebra is locally m -pseudoconvex. Condition for submultiplicativity of F -seminorm is given.

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