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ON SOME VON NEUMANN TOPOLOGICAL ALGEBRAS

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ABSTRACT. We show that a regular von Neumann Q - m -convex Fréchet algebra is of finite dimension. We also show that a regular von Neumann m -convex Fréchet algebra is a projective limit of finite dimensional algebras. Finally, we prove that a bilateral Q - F -algebra is a regular von Neumann algebra if and only if it is isomorphic to a finite product of algebras which are also fields.

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