

1057-46-20

Luiza A. Moraes* (luiza@im.ufrj.br), Instituto de Matemática, Universidade Federal do Rio de Janeiro, CP 68530, Rio de Janeiro, 20511-270, Brazil. *Algebras of Lorch Analytic Mappings*.

If E is a Banach algebra, a mapping $f : U \subset E \rightarrow E$ is Lorch-analytic if given any $a \in U$ there exists $\rho > 0$ and there exist unique elements $a_n \in E$, such that $f(z) = \sum_{n=0}^{\infty} a_n(z - a)^n$, for all z in $\|z - a\| < \rho$. The theory of Lorch-analytic mappings goes back to the 1940's and is a very natural extension of the classical concept of analytic function to infinite dimensional algebras that allows concepts as Laurent series, singularities or a Mittag-Leffler's theorem.

The main purpose of this talk is to show results from [1] where we describe the spectra of different algebras of Lorch-analytic mappings in connection with the spectrum of the underlying algebra.

References

[1] L.A. Moraes and A. F. Pereira, The spectra of algebras of Lorch analytic mappings, Topology, IDAT Special Issue, to appear. (Received November 22, 2009)