

Locally convex spaces of analytic functions

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- Locally convex spaces introduction
- General properties of spaces of analytic functions
 - montelity and nuclearity
 - duality
- Some facts of potential theory
- Spaces of analytic functions on sets in complex plane
 - bases
 - isomorphic classification
 - applications to approximation and interpolation
- Spaces of analytic functions on sets of a Stein manifold
 - germs of analytic functions
 - cohomologies
- Pluripotential Theory
- Hilbert scale theorem
- Interpolation properties of spaces of analytic functions on Stein manifolds
- Bases in spaces of analytic functions on Stein manifolds
- Bernstein-Walsh-Siciak theorem
- Separate analyticity
- Isomorphic classification of spaces of analytic functions on Stein manifolds

References

- [1] T. Ransford, *Potential Theory in the complex plane*
- [2] M. Klimek, *Pluripotential Theory*
- [3] R. Meise and D. Vogt, *Introduction to Functional Analysis*
- [4] V. Zakharyuta, *Spaces of analytic functions and pluripotential theory*