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Manuel Maestre* (manuel.maestre@uv.es), Departamento de Análisis Matemático, Universidad de Valencia, Doctor Moliner, 50, 46010 Burjassot, Valencia, Spain. *Vectorial Bohr radii and Dirichlet series.*

In 2009, Defant et al. gave asymptotic optimal estimates for K_n , the Bohr radius of scalar valued holomorphic functions on the polydisk. But Blasco in 2009 has shown that the vector valued Bohr radius can be 0. We present a study showing that for $\lambda > 1$, the vector valued Bohr radii $K_n(\lambda, X)$ is always strictly positive. If X is finite dimensional then we obtain optimal asymptotic bounds for $K_n(\lambda, X)$. We also give “almost” asymptotic bounds for the case X infinitely dimensional related to the cotype of X . For that we make the connection with the strip of uniform but not absolute convergence of vector valued Dirichlet series.

This is joint work with Andreas Defant (University of Oldenburg)

References

- [1] A. Defant, L. Frerick, J. Ortega-Cerdà, M. Ounaiës, and K. Seip, *The Bohnenblust-Hille inequality for homogeneous polynomials is hypercontractive* pr. (2009).
- [2] A. Defant, D. García, M. Maestre and D. Pérez García, *Bohr’s strip for vector valued Dirichlet series*, Math. Annal. **342** (2008) 533-555;
- [3] A. Defant, and M. Maestre, *Vector valued Bohr radii*, pr. 2010.

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