

Bourgain Algebras of Subalgebras of $A(\bar{D})$ on the Unit Disk

Miroslav Hristov

*Department of Mathematical Analysis, Faculty of Mathematics and Informatics
Konstantin Preslavski University of Shumen
9712 Shumen, Bulgaria
miroslav.hristov@shu.bg*

Keywords: Bounded analytic functions, Bourgain algebras.

Let ψ be a finite Blaschke product and $A(\bar{D})$ be the disk algebra. In this paper we prove that the Bourgain algebra of $\psi A(\bar{D})$ relative to $L^\infty(D)$ coincides with $(H^\infty(D) \cap W(D)) + C(\bar{D}) + V$.

Acknowledgements. This work is supported by the Scientific research fund of Konstantin Preslavski University of Shumen under the grant RD-08-120/2017.

References

- [1] Garnett J. Bounded analytic functions, Springer, Graduate Texts in Mathematics 236, New York, 2007.
- [2] Cima J., R. Timoney. The Dunford-Pettis property for certain planar uniform algebras, Michigan Math. J., 34 (1987), 99–104.
- [3] Stankov D. Douglas algebras on the boundary of the big disk, Complex Analysis and Operator Theory, 2015, v. 9, 1337–1348.