THE DEPARTMENT OF MATHEMATICAL SCIENCES

Purdue University Fort Wayne

is pleased to present

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Second level universal bounds for energy and size of spherical codes: the Levenshtein framework lifted

Abstract

We introduce a framework based on the Delsarte-Yudin linear programming approach for improving universal lower bounds previously obtained by the authors for the minimum energy of spherical codes of prescribed dimension and cardinality and universal upper bounds on the maximal cardinality of spherical codes of prescribed dimension and minimum distance. Our results can be considered as next level universal bounds as they have the same general nature and imply, as the first level bounds do, necessary and sufficient conditions for their local and global optimality.

Joint work with: Peter D. Dragnev, Douglas P. Hardin, Edward B. Saff, Maya M. Stoyanova

Noon – 1:00, Wednesday, October 24, 2018. Location: Kettler 216

`http://www.pfw.edu/departments/coas/depts/math/news/seminars.html`