arXiv.org > math > arXiv:1107.1066

Search or Article-id

(Help | Advance

All papers

Mathematics > Combinatorics

Families of twisted tensor product codes

Luca Giuzzi, Valentina Pepe

(Submitted on 6 Jul 2011)

Using geometric properties of the variety \$\cV_{r,t}\$, the image under the Grassmannian map of a Desarguesian \$(t-1)\$-spread of \$\PG(rt-1,q)\$, we introduce error correcting codes related to the twisted tensor product construction, producing several families of constacyclic codes. We exactly determine the parameters of these codes and characterise the words of minimum weight.

Comments: Keywords: Segre Product, Veronesean, Grassmannian, Desarguesian spread,

Subgeometry, Twisted Product, Constacyclic error correcting code, Minimum

weight

Combinatorics (math.CO); Information Theory (cs.IT) Subjects:

MSC classes: 94B05, 94B27, 15A69, 51E20 DOI: 10.1007/s10623-012-9613-6 Cite as: arXiv:1107.1066 [math.CO]

(or arXiv:1107.1066v1 [math.CO] for this version)

Submission history

From: Luca Giuzzi DPhil [view email] [v1] Wed, 6 Jul 2011 09:15:57 GMT (12kb)

Which authors of this paper are endorsers?

Link back to: arXiv, form interface, contact.

Download:

- PDF
- **PostScript**
- Other formats

Current browse cont math.CO

< prev | next > new | recent | 1107

Change to browse b

cs.IT math

References & Citation

NASA ADS

Bookmark(what is this?)





