On the sizes of expander graphs and minimum distances of graph codes

On the sizes of expander graphs and minimum distances of graph codes

We give lower bounds for the minimum distances of graph codes based on expander graphs. The bounds depend only on the second eigenvalue of the graph and the parameters of the component codes. We also give an upper bound on the size of a degree regular graph with given second eigenvalue.

General information
State: Published
Organisations: Department of Applied Mathematics and Computer Science, Mathematics
Contributors: Høholdt, T., Justesen, J.
Pages: 38-46
Publication date: 2014
Peer-reviewed: Yes

Publication information
Journal: Discrete Mathematics
Volume: 325
ISSN (Print): 0012-365X
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Scopus rating (2017): CiteScore 0.77 SJR 0.851 SNIP 1.227
Web of Science (2017): Impact factor 0.738
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 0.72 SJR 0.877 SNIP 1.034
Web of Science (2016): Impact factor 0.639
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): CiteScore 0.64 SJR 0.877 SNIP 1.133
Web of Science (2015): Impact factor 0.6
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): CiteScore 0.68 SJR 0.974 SNIP 1.206
Web of Science (2014): Impact factor 0.557
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): CiteScore 0.74 SJR 0.931 SNIP 1.229
Web of Science (2013): Impact factor 0.566
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): CiteScore 0.7 SJR 0.923 SNIP 1.156
Web of Science (2012): Impact factor 0.578
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): CiteScore 0.66 SJR 0.824 SNIP 0.978
Web of Science (2011): Impact factor 0.519
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.845 SNIP 1.032
Web of Science (2010): Impact factor 0.536
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.914 SNIP 1.317