The PI index of polyomino chains of 2*k***-cycles**

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ABSTRACT.

The Padmakar-Ivan (PI) index of a graph *G* is the sum over all edges uv of *G* of the number of edges which are not equidistant from the vertices u and v. In this paper we compute the PI index of polyomino chains of 2k-cycles where $k \ge 2$ and establish bounds for it.

References

- [1] Qin, X. and Su, Y., Viscosity approximation methods for nonexpansive mappings in Banach spaces, Carpathian J. Math., 22 (2006), No. 1-2, 163-172
- [2] Berinde, V., Comparing Krasnoselskij and Mann iterative methods for Lipschitzian generalized pseudocontractions, in *Proceedings of the International Conference on Fixed Point Theory and Its Applications*, Valencia, Spain, July 13-19, 2003 (Garcia-Falset, J. et al., Eds.), Yokohama Publishers, Yokohama, 2004, 15-26
- [3] Rus, I. A., Petruşel, A. and Petruşel, G., Fixed Point Theory: 1950 2000. Romanian Contributions, House of the Book of Science, Cluj-Napoca, 2002

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