

Long, Shu-De; Cai, Jun-Liang**Counting rooted 4-regular unicursal planar maps.** (English) Zbl 1378.05091

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Summary: A map is 4-regular unicursal if all its vertices are 4-valent except two odd-valent vertices. This paper investigates the number of rooted 4-regular unicursal planar maps and presents some formulae for such maps with four parameters: the number of edges, the number of inner faces and the valencies of the two odd vertices.

MSC:

05C30 Enumeration in graph theory

05C10 Planar graphs; geometric and topological aspects of graph theory

05C45 Eulerian and Hamiltonian graphs

Keywords:

unicursal planar map; enumerating function; functional equation; Lagrangian inversion

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