



The autoconjugacy of a generalized Collatz map

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Many of the 2-adic properties of the $3x+1$ map generalize to the analogous $mx+r$ map, where m and r are odd integers. We introduce the corresponding autoconjugacy map, prove some simple properties of it and make some further conjectures in the general setting, including weak versions of the periodicity and divergent trajectories conjectures.

Subjects: **Number Theory (math.NT)**

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