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Efficiency of AdS-RN black holes as heat engines in the framework of Rastall gravity

We compute the efficiencies of AdS-Reissner-Nordstrom black hole as heat engines in the framework of Rastall gravity. For this purpose, we construct a conventional heat engine system out of a black hole and tried to analyse the influence of various parameters of the theory on the efficiency of the engine. We also compared the obtained efficiencies with the carnot efficiency which is the maximum efficiency that is achievable for any heat engine. It was found that the parameters of the theory namely the charge q, rastall parameter β and structure constant N_s has drastic influence on increasing or decreasing the efficiencies of the black hole heat engines.

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