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Eternal radiation and De Sitter space DOUGLAS SINGLETON, California State University, Fresno, EMIL AKHMEDOV, Moscow Institute of Physics and Technology, PAVLE BUIVIDOVICH, JIPNR, National Academy of Science, Belarus — We give general arguments that any interacting non-conformal classical field theory in de Sitter space leads classical radiation without end. The arguments are based on the observation that massive free falling particles can radiate other massive particles on the classical level as seen by the free falling observer. The intensity of the radiation process is non-zero even for particles with any finite mass, i.e. with a wavelength which is within the causal domain. This is a reductio ad adsurdum intended to show that de Sitter space can not exist eternally. Otherwise one could extract radiation externally.

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