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## Extreme-ultraviolet transient brightenings in the quiet-Sun corona observed with Solar Orbiter/EUI

The extreme-ultraviolet (EUV) brightenings identified by Solar Orbiter (SolO), commonly known as campfires, are the smallest detected, to date, transient brightenings or bursts observed in the non-active regions of the lower solar corona. Our understanding about the role of campfires in the coronal heating stands elusive due to the absence of extensive statistical studies. We perform statistical analysis of the campfires by using the highest possible resolution observations obtained by the Extreme Ultraviolet Imager (EUI) onboard SolO. We use observations in the 17.4 nm passband of the High Resolution EUV Imager (HRIEUV) of EUI obtained during the closest perihelia of SolO in the year of 2022 and 2023. SolO being at a distance 0.29 AU from the Sun, these observations have exceptionally high pixel resolution of 105 km with the fast cadence of 3 s. We report the detection of smallest campfires in the quiet-Sun. The detected campfires have sizes in the range of 0.01 Mm² to 10 Mm². Their lifetimes vary between 3 s and 1000 s. Their distribution of size and lifetime shows the power-law behaviour. We estimate that about 10⁴ campfires appear per second on the whole Sun. Considering the HRIEUV bandpass that is most sensitive to the 1 MK plasma, the increasingly high number of campfires at smaller spatial and temporal scales over the quiet-Sun regions make them one of the contributors for the quiet-Sun coronal heating.

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