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Muon background minimisation using the second achromat of the NA62-BD experiment

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The K12 beam line and NA62 experiment in the North Area at CERN in beam dump mode exploits the interactions of 400 GeV protons with a movable dump-collimator, the so-called XTAX. Such interactions are theorised to generate potential light dark matter candidates such as the axion. Any rare process search requires precise knowledge and experimental reduction of the predominant muon background. A previous examination has been performed successfully, involving tuning the magnetic fields of the first achromat in K12. This contribution aims to explore further improvements using similar methods on the second achromat in the same K12 beam line, using BDSIM simulation software.

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Footnotes

I have read and accept the Privacy Policy Statement

Yes

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