Particle Physics on the Plains 2022 Part 2



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Stellar Binary Hardening from Solar Mass Primordial Black Holes

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Light primordial black holes (PBHs) can explain the observed dark matter abundance while being consistent with the current indirect detection constraints. These light PBHs could have a wide range of effects on stellar binaries. In particular, the separation of binary systems may be sensitive to the mass and abundance of PBHs which perturb them. This sensitivity could show up in current and future binary data. The separation distribution of stellar binaries can possibly be used to probe PBHs.

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