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Constraints on dark matter from strong gravitational lensing in the era of JWST

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Strong lensing provides a direct, purely gravitational method to infer the abundance and internal structure of dark matter halos, which in turn depend on the particle nature of dark matter. Follow up of quadruple image strong lens systems with JWST will deliver more precise and constraining measurements than currently possible with HST, leading to unprecedented constraints on the nature of dark matter. I will discuss the latest bounds on warm and self-interacting dark matter from quadruple-image lenses observed in late 2022 and mid 2023 by JWST, and discuss the future of strong lensing constraints on dark matter with an increasing sample size of lens systems.

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