

Abstract Submitted
for the APR21 Meeting of
The American Physical Society

An Upper Limit on the Spin of SgrA* Based on Stellar Orbits in Its Vicinity. GIACOMO FRAGIONE, Northwestern University — The spin of the massive black hole (BH) at the center of the Milky Way, SgrA*, has been poorly constrained so far. We place an upper limit on the spin of SgrA* based on the spatial distribution of the S-stars, which are arranged in two almost edge-on disks that are located at a position angle of approximately +/- 45 degrees with respect to the Galactic plane, on a milliparsec scale around the Galactic center. Requiring that the frame-dragging precession has not had enough time to make the S-star orbital angular momentum precess, the spin of the massive BH at the center of the Milky Way can be constrained to <0.1 .

Giacomo Fragione
Northwestern University

Date submitted: 07 Jan 2021

Electronic form version 1.4