Millimeter Flux of Sgr A* : Evidence for a Nearly Face-on Inner Accretion Disk?

Published paper

Origin of the periodicity in Sagittarius A* (Sgr A*)?

- We analyzed **77** epochs of ALMA archival data of Sgr A*, which show QPOs at millimeter wavelengths.
- We detected a **clear sinusoidal variation** with a period of 52 minutes with a significance $> 5\sigma$.
- We fitted a **hotspot model** based on **relativistic Doppler boosting** from an orbiting emission region, which remarkably reproduces the variation.
- The best-fit inclination angle of **172°** provides strong evidence for a nearly **face-on inner accretion disk of Sgr A*.**



