

Reverberation Mapping with the Roman Space Telescope

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and the SDSS-RM Team

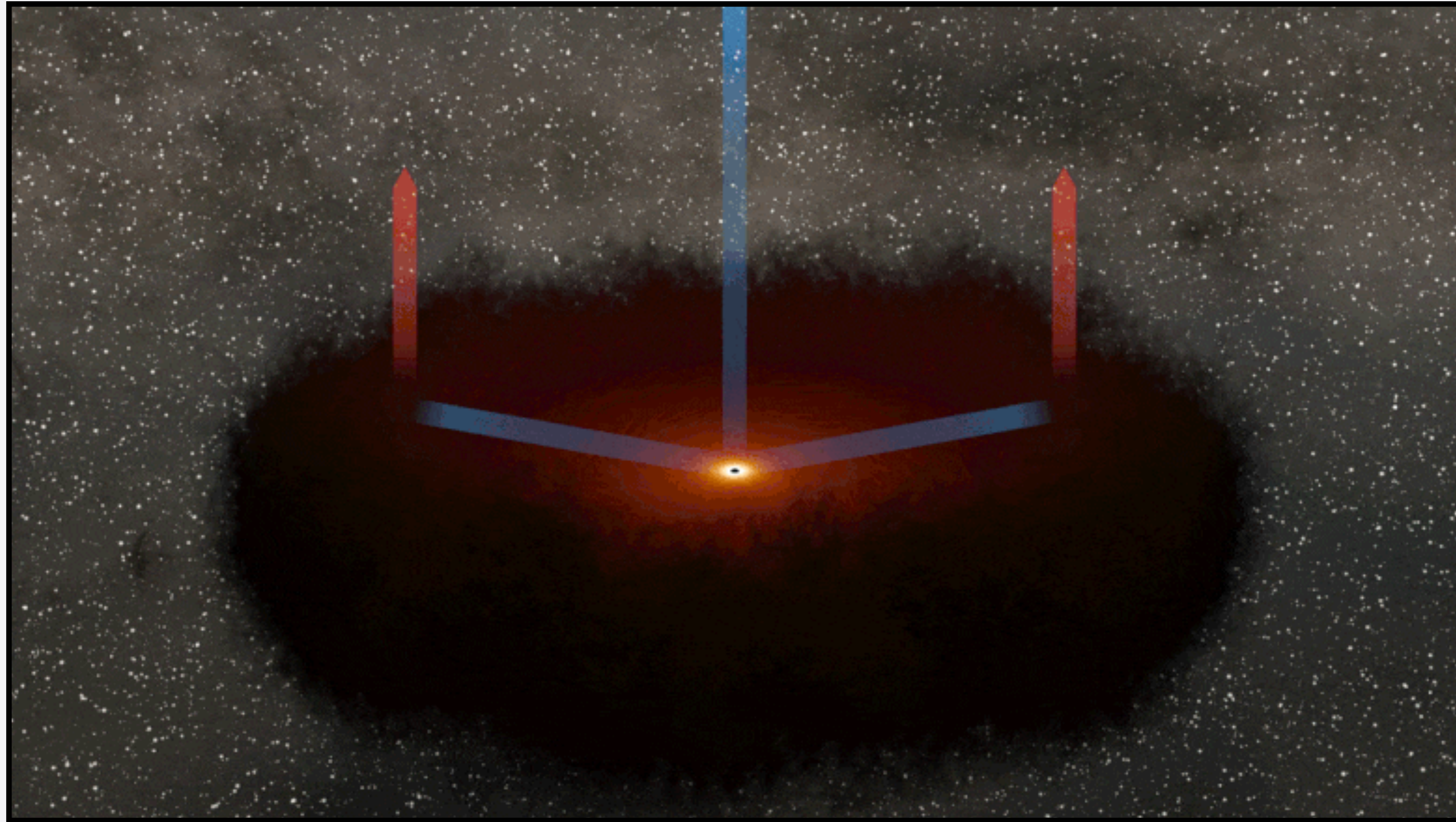


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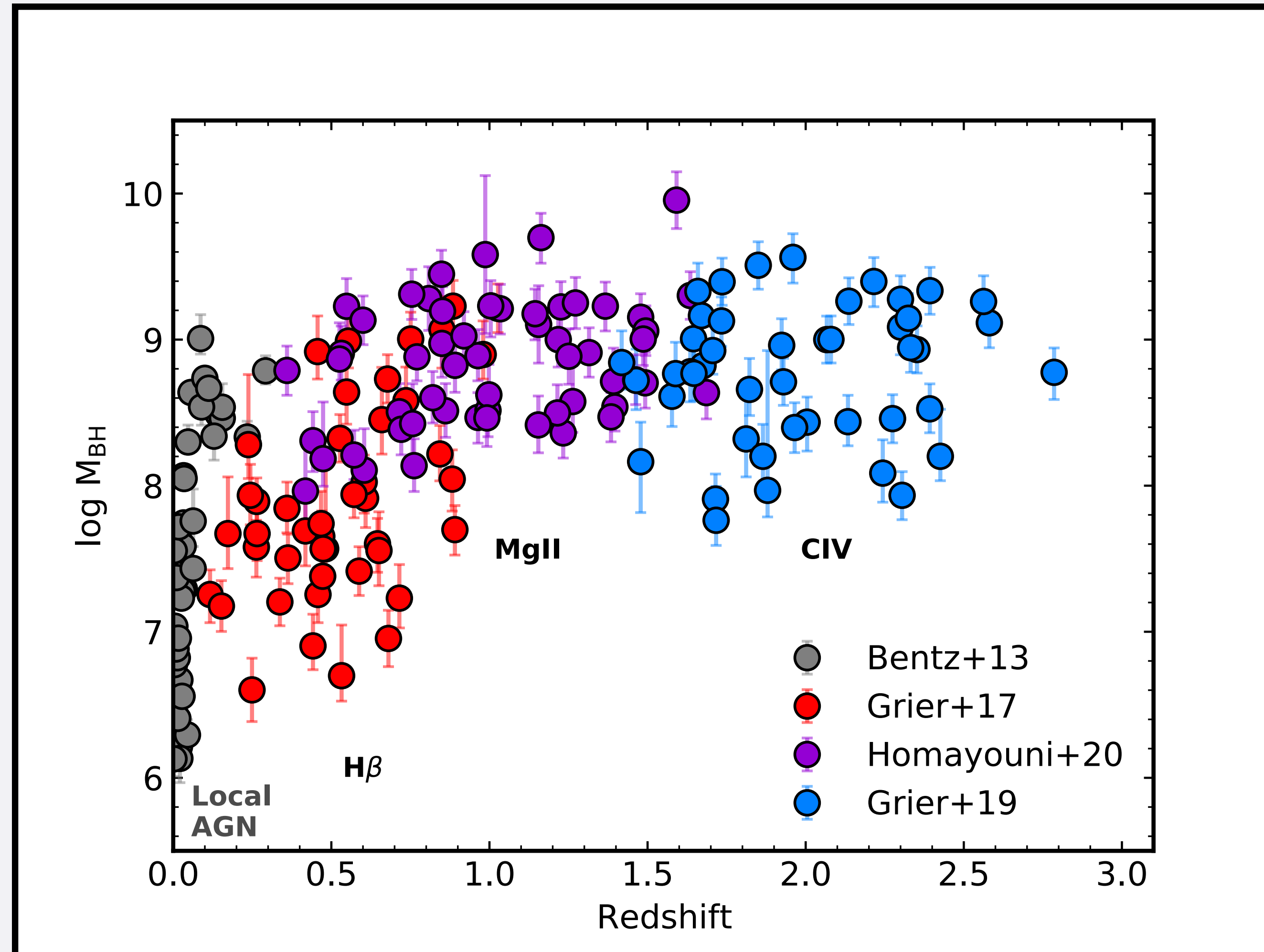
@AGalacticNica

Light Echoes

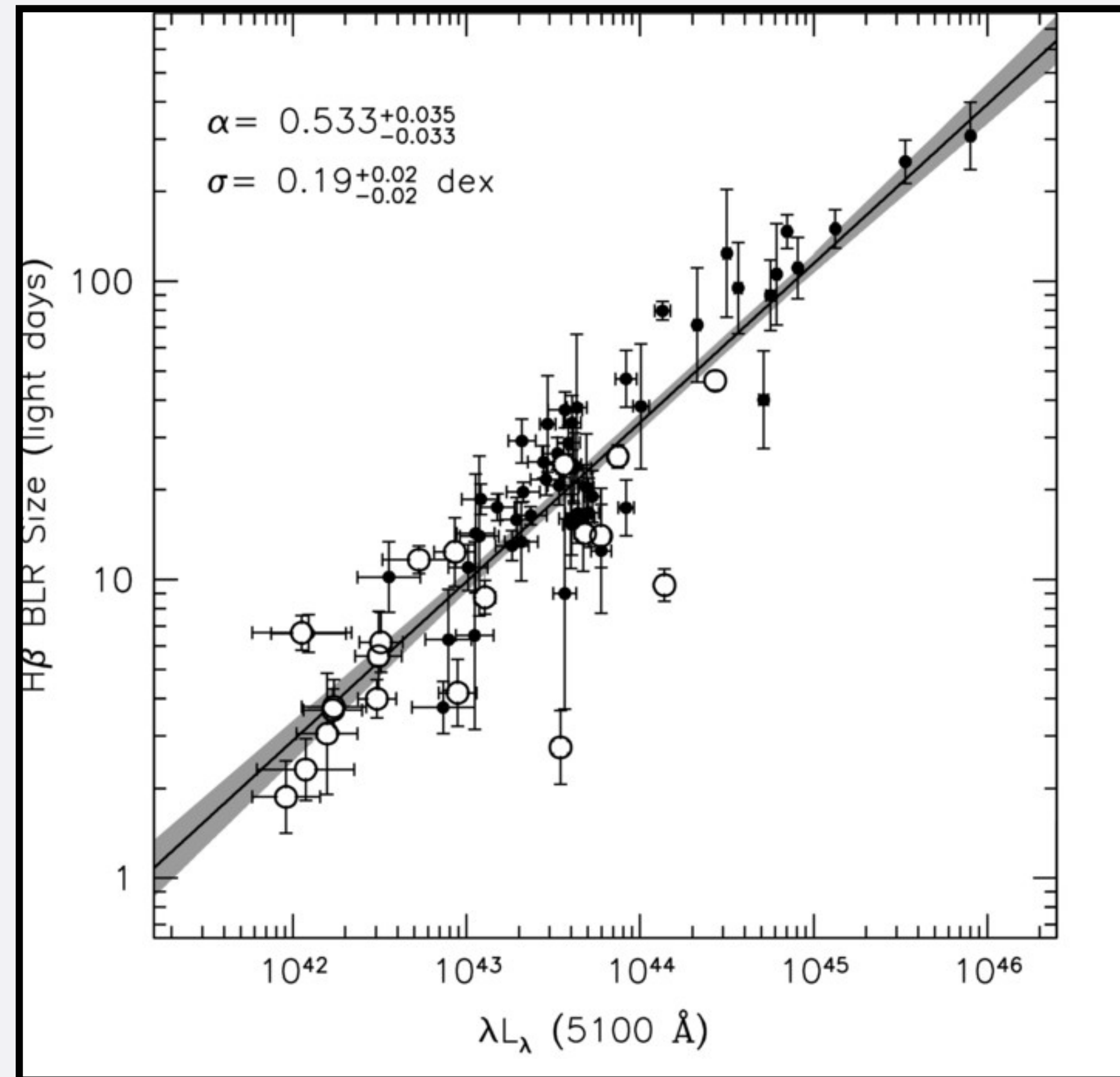


NASA/JPL-Caltech

Current Reverberation Mapping Results



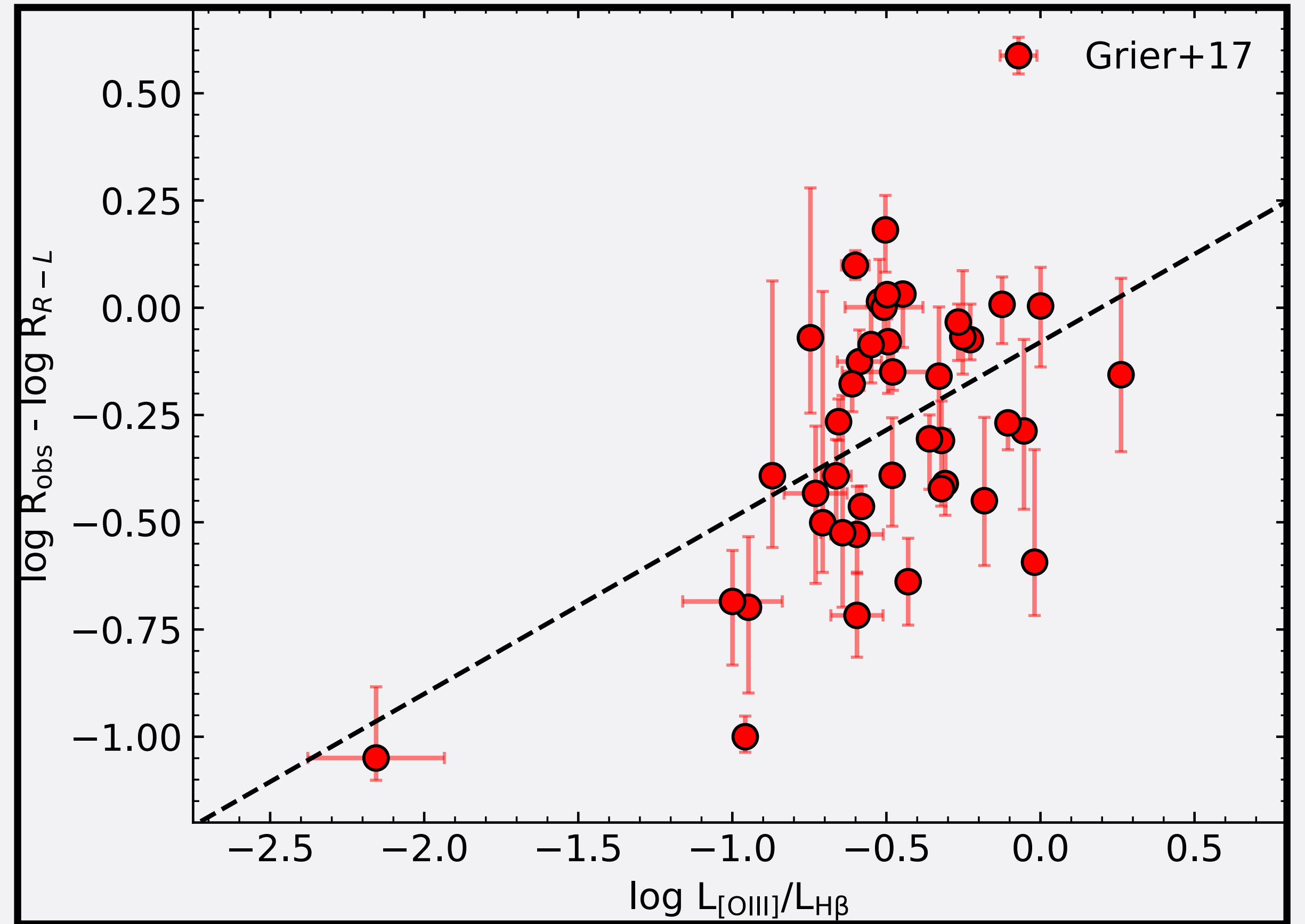
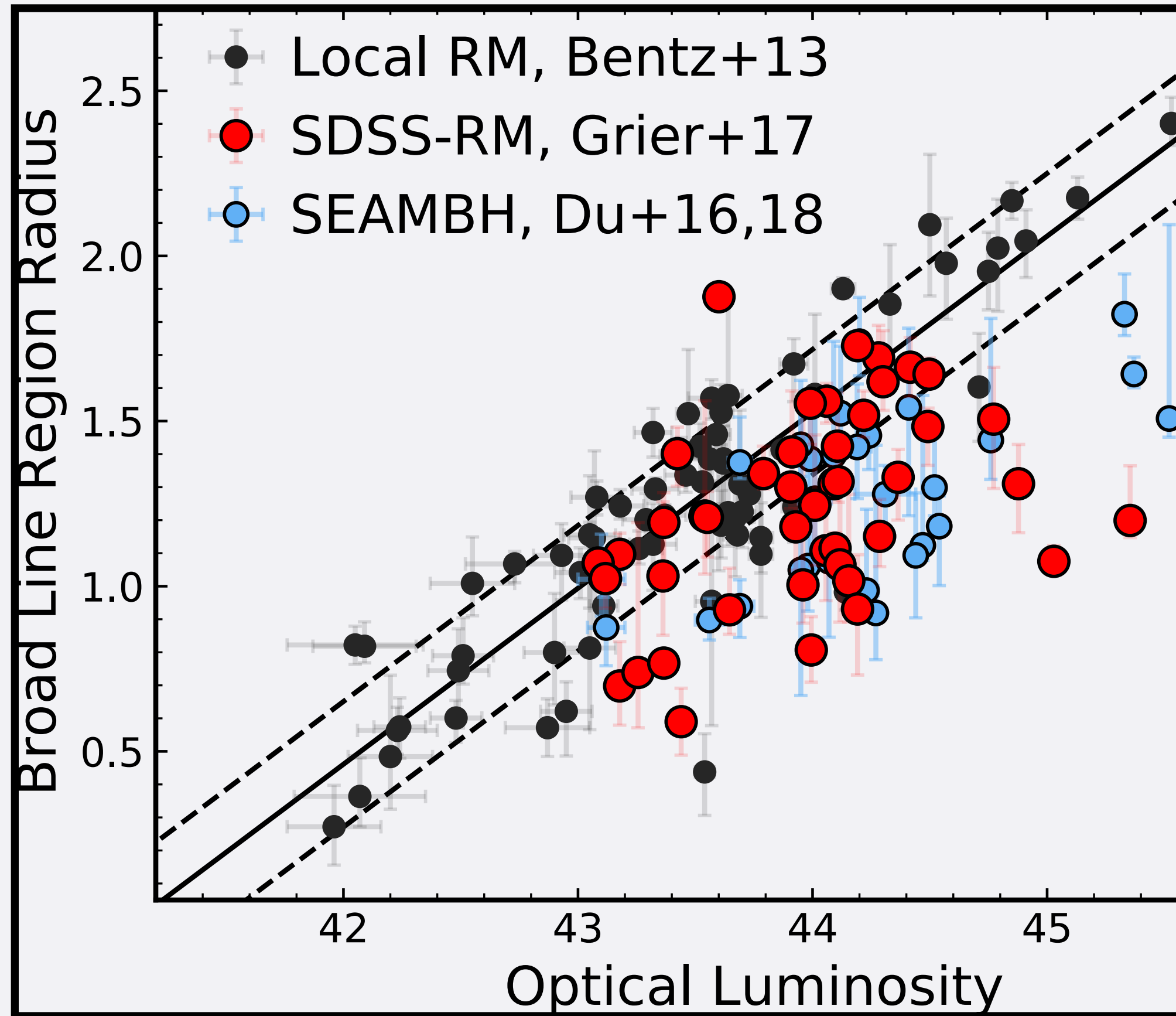
Quasars as Standard Candles



e.g. Martínez-Aldama et al. 2019,
Khadka et al. 2021

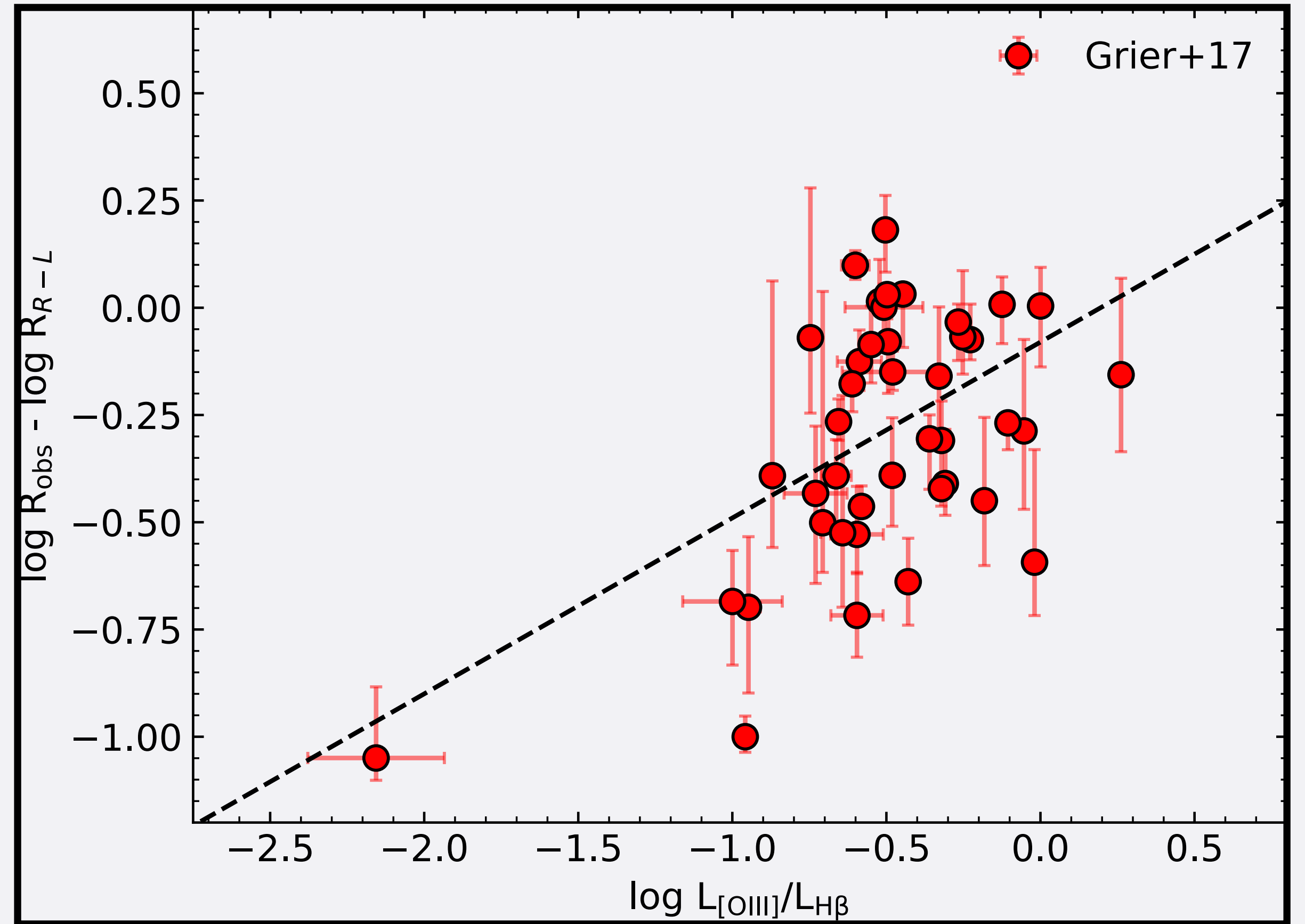
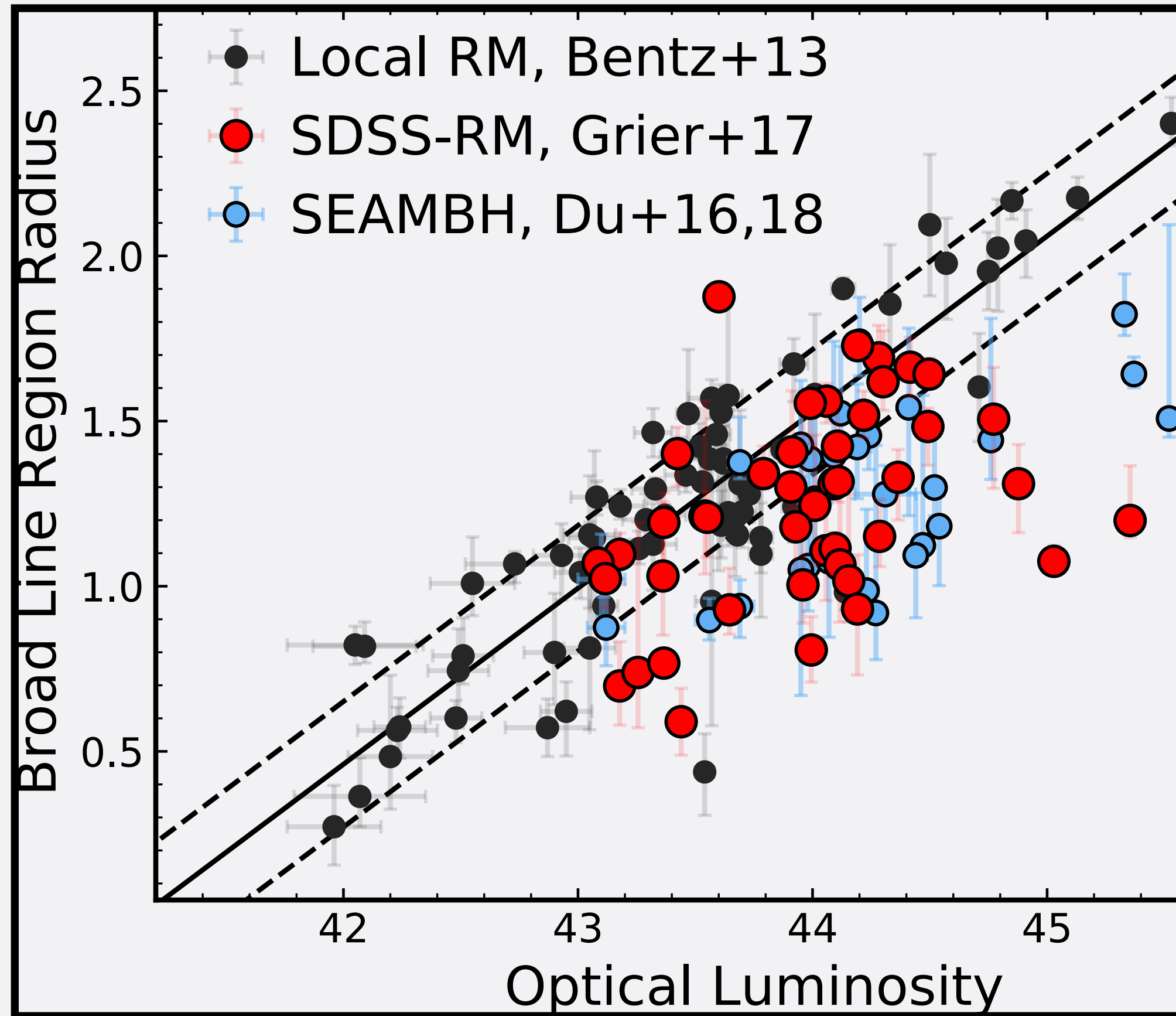
Bentz et al. 2013

Problems with the Radius-Luminosity Relation



Fonseca Alvarez et al. 2020

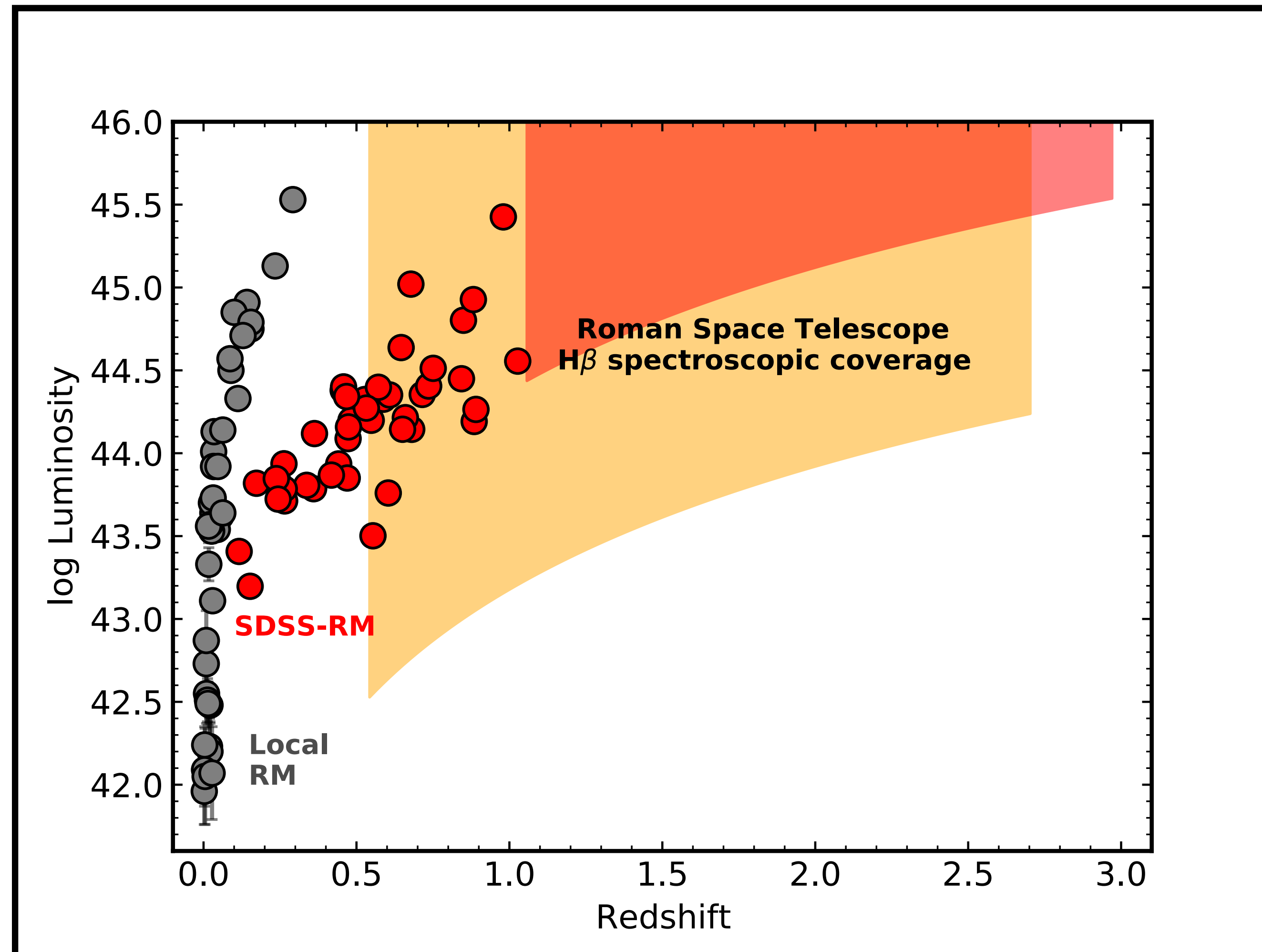
Problems with the Radius-Luminosity Relation



Fonseca Alvarez et al. 2020

Upcoming work: Re-calibrating RL relation + SDSS-V!

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Goal: Multi-object reverberation mapping of higher redshift quasars using H β

High Latitude Time Domain Survey

Broad-line reverberation mapping

- Spectroscopy + photometry
- Lag timescale \sim tens to hundreds of days (restframe)
- Monitoring: up to a few years, weekly or bi-weekly cadence

Continuum reverberation mapping

- Photometry
- Lag timescale \sim few days (restframe)
- Monitoring: few months, 5 day cadence