## Sixteenth Marcel Grossmann Meeting



Contribution ID: 260

Type: Invited talk in the parallel session

## Measuring the Hubble constant from Gravitational Lensing

Thursday, 8 July 2021 18:30 (22 minutes)

First proposed in 1964 by Sjur Refsdal, gravitational lensing provides a straightforward and elegant geometrical way of estimating the Hubble constant from cosmologically distant variable sources. The method relies on observationally determined time delays between light arriving through different multiple images, and the mass models of the lens, which are constrained by observed image properties and other information. While the time delays are obtained with increasing precision, the mass models, which are subject to lensing degeneracies, remain the main source of systematic uncertainty. Various modeling groups have adopted different strategies for dealing with degeneracies. In this talk I will describe the basics of extracting H0 from lensing, the observational successes, modeling challenges, current results, and future prospects.

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**Session Classification:** Status of the H\_0 and Sigma\_8 Tensions: Theoretical Models and Model-Independent Constraints

**Track Classification:** Cosmic Microwave Background: Status of the H\_0 and sigma\_8 tensions: theoretical models and model-independent constraints