Contribution ID: **29** Type: **Talk**

Time Delay Lens Modeling Challenge

Strong gravitational lenses with measured time delay are a powerful tool to measure cosmological parameters, especially the Hubble constant (H0). Recent studies show that six multiply-imaged AGN systems can determine H0 to 2.4% precision in a flat LCDM. Furthermore, the number of time-delay lens systems is growing rapidly, enabling, in principle, the determination of H0 to 1% precision in the near future. However, it is important to ensure that systematic errors and biases remain subdominant. I will present "Time Delay Lens Modeling Challenge" (TDLMC), which is aiming to assess the level of accuracy of inferred cosmological parameters given realistic mock datasets. I will give an overview of the challenge design and present the result.

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