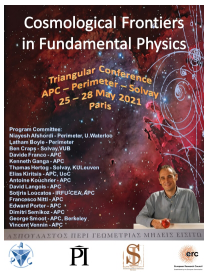

ID de Contribution: **12** Type: **Non spécifié**

New Advances with Type Ia Supernovae To Measure The Expansion of the Universe

mercredi 26 mai 2021 18:10 (40 minutes)

Type Ia Supernovae (SNe Ia) are critical tools for measuring the current expansion rate of the universe, described by the Hubble Constant, and the accelerating expansion, due to a mysterious dark energy'. As measurements from SNe Ia continue to be important and exciting, there has been widespread interest on strengths and limitations of using SNe Ia in analyses. Here, I review the latest cosmological results using SNe Ia as well as systematic uncertainties and needed improvements for future analyses. I present a new key insight on the physics of SNe that addresses some of the most confounding issues of the last decade. I discuss the state of theHubble Constant Tension'and upcoming measurements of the local cosmic distance ladder. I then will transition to future experiments like LSST and WFIRST, and show forecasts of the amazing constraints on cosmological parameters with 100x the statistics of current samples.

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Classification de Session: Second Session, Wednesday