Contribution ID: **19** Type: **Oral**

Reconstructed potentials of the 2-field model of dark energy with canonical and non-canonical kinetic terms

Tuesday, 4 December 2018 15:00 (20 minutes)

We generalize quintom to include the tachyonic kinetic term along with the classical one. For the spatially flat, homogeneous and isotropic Universe with Friedmann-Robertson-Walker metric of 4-space we discuss in detail the reconstruction of the scalar fields potential $U(\phi, \xi)$. Such a reconstruction cannot be done unambiguously, so we consider 3 simplest forms of $U(\phi, \xi)$: the product of $\Phi(\phi)$ and $\Xi(\xi)$, the sum of $\Phi(\phi)$ and $\Xi(\xi)$ and this sum to the κth power. We present the maps of reconstructed potentials for the Chevallier-Polarski-Linder parametrization of the equation of state parameter and the set of cosmological parameters obtained from the latest Planck data.

Primary author: SERGIJENKO, Olga (Taras Shevchenko National University of Kyiv)

Presenter: SERGIJENKO, Olga (Taras Shevchenko National University of Kyiv)

Session Classification: Astrophysics and Cosmology

Track Classification: Astrophysics and Cosmology