Contribution ID: **126** Type: **Plenary talks (by invitation only)**

Inflation, production of primordial black holes and spontaneous SUSY breaking in modified supergravity

Wednesday 19 July 2023 09:30 (30 minutes)

Modified (the higher-derivative) supergravity models of cosmological inflation are introduced by extending the Starobinsky model of inflation to supergravity and including production of primordial black holes, in agreement with current precision measurements of the cosmic microwave background radiation. It leads to multi-field inflation, dark matter genesis as primordial black holes, and detectable (induced) stochastic gravitational waves. Adding the nilpotent superfield describing Akulov-Volkov goldstino with a no-scale Kaehler potential and a polynomial superpotential leads to spontaneous SUSY breaking near the inflationary scale and super-heavy gravitino particles.

Primary author: Prof. KETOV, Sergei (Tokyo Metropolitan University and Kavli IPMU)

Presenter: Prof. KETOV, Sergei (Tokyo Metropolitan University and Kavli IPMU)

Session Classification: Plenary Session

Track Classification: Plenary