Contribution ID: **69** Type: **not specified**

K+K- photoproduction in ultra-peripheral Pb-Pb collisions with ALICE

Monday 11 December 2023 18:45 (15 minutes)

In ultra-peripheral collisions (UPCs), the photon fluctuates to a quark-antiquark dipole which then elastically scatters off the nucleus, emerging as vector meson and opposite-charge pseudoscalar meson pair. The excellent particle identification capabilities of ALICE enable the study of photoproduced pi+pi- and K+K- pairs at midrapidity in Pb–Pb collisions at √sNN = 5.02 TeV. We will present the exclusive K+K- photoproduction cross section in ALICE, measured for the first time in UPCs. We will discuss about the interference between resonance contribution of phi(1020) –> K+K- and direct pair production, obtained from a fit to the invariant mass spectrum of K+K- pairs, with comparison to the pi+pi- system.

Primary author: KIM, Minjung (University of California Berkeley (US))

Presenter: KIM, Minjung (University of California Berkeley (US))

Session Classification: Vector meson photoproduction

Track Classification: Session 1: Vector meson photoproduction