Old Dominion University
Department of Physics

Colloquium

Tuesday, September 19, 2017

"Strangeness from Quark-Gluon Plasma"

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Abstract: Quark-Gluon Plasma filled the early Universe in first 20 microseconds. It has been recreated in experiments carried out colliding atomic nuclei. The energy threshold for the formation of quark-deconfined state is near 3.5 GeV per nucleon-CM. This is allowing exploration of QGP properties. The experimental challenge is fireball explosion requiring recognition of characteristic signatures operating at sub-nuclear time scale. An in-depth discussion of the strangeness observable, including a survey of the past and ongoing experimental effort at CERN-SPS, BNL-RHIC, and CERN-LHC will show how we know QGP was formed and how a measurement of physical properties of QGP is achieved.

For a recent review see https://arxiv.org/abs/1708.08115 : "From Strangeness Enhancement to Quark-Gluon Plasma Discovery »
by Peter Koch, Berndt Müller, Johann Rafelski.

Presentation: OCNPS 200 @ 3:00 pm
Refreshments: OCNPS Atrium @ 2:30 pm

All interested persons are cordially invited to attend.