



Объединенный институт ядерных исследований  
ЛАБОРАТОРИЯ ТЕОРЕТИЧЕСКОЙ ФИЗИКИ  
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Семинар  
"ТЕОРИЯ АДРОННОГО ВЕЩЕСТВА ПРИ ЭКСТРЕМАЛЬНЫХ УСЛОВИЯХ"

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Семинар состоится  
**в среду, 12 ноября в 16.00**  
в аудитории им. Д. И. Блохинцева (4 этаж)

**Genis Musulmanbekov**  
(Lab. of Information Technology, JINR)

## **On Production and Polarization of Hyperons in Heavy Ion Collisions**

A new mechanism is proposed for the interpretation of the non-monotonic, enhanced yield of hyperons and strange mesons (also known as "horn" effect), that is observed in central heavy ion collisions in the experiment NA49 at SPS and confirmed by STAR at RHIC. We argue that the data indicate the transition of the nucleons in the overlap region of the colliding nuclei with high nuclear density into a certain hyperon phase. In semicentral heavy ion collisions a strong magnetic field and very large orbital angular momentum can be created. The polarization of hyperons becoming possible due to these phenomena is discussed.