

# 第68回 (2021年度第6回) 広島大学 極限宇宙研究拠点 (CORE-U) Seminar

日時 : 2021年11月26日(金)14:00-15:30

場所 B101 (20名) + Teams on-line

(Teams Link is in the second page of this poster.)

講師 : 村瀬 功一 氏 (Dr. K. Murase)

所属: 京都大学 基礎物理学研究所 (YITP, Kyoto Univ.)

題目: Relativistic hydrodynamics in dynamical modeling  
of high-energy nuclear collisions

**要旨:** Quarks and gluons are confined in hadrons such as protons, nucleons, and pions at normal temperature and density, whereas they are deconfined to form quark-gluon plasma (QGP) at high temperature and/or high baryon density such as in the early universe or possibly in compact stars. One of the purposes of high-energy nuclear collision experiments is to investigate the thermodynamic and transport properties of the QGP created in the collision reaction process. To connect the observed hadron momentum spectra to the properties of the created matter, the dynamical models that describe the whole reaction process including initial, QGP, and hadron gas stages are important. Relativistic hydrodynamics is the main part of the dynamical model which describes the spacetime evolution of the equilibrated matter from the QGP to the hadron gases. In this talk, we first discuss the recent topics of the relativistic hydrodynamic models and also the details on the properties and the modeling of hydrodynamic fluctuations in relativistic systems.

\* The talk will be presented in Japanese and the slides will be written in English.

なお先進理工系科学研究科の他プログラム専門科目,共同セミナー等の認定を受ける人は11月22日(月) - 11月25日(木)の間に下記両角あて氏名および学生番号をメールで連絡のこと。

広島大学極限宇宙研究拠点 (Core-U)  
セミナー 世話人 山口頼人、水野恒史、両角卓也  
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本セミナーの内容に対する問い合わせは野中千穂までお願いします。

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Teams Link for the sixth core-u  
seminar (Nov.26) by Dr. K. Murase  
is here