



物理学特別講義（発展）第四十二
(Advanced) Special Lectures in Physics XXXXII

**「Relativistic hydrodynamics and
its application to high-energy nuclear collisions」**

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日程・場所 (Schedule and Place):

6/22 (Wednesday)

13:30–15:10 (H116), 15:30–17:10 (H116)

6/29 (Wednesday)、7/13 (Wednesday)

10:45–12:25 (H1104), 13:30–15:10 (H116), 15:30–17:10 (H116)

* 最終回はセミナー形式

<講義概要, Abstract>

The quark gluon plasma (QGP) is known as primordial deconfined nuclear matter occupied in the early universe ~ 10 microsecond after the Big Bang. The QGP can be created in high-energy nuclear collisions and found to behave as an almost perfect fluid. In this lecture, a framework of relativistic hydrodynamics is reviewed aiming at description of space-time evolution of the QGP in high-energy nuclear collisions. The topics include: conservation law, definition of frames, ideal and viscous hydrodynamics.