

# — 第 866 回九大原子核セミナー —

講師 : Prof. Philippe de Forcrand 氏  
(ETH Zürich and CERN)

演題 : Nuclear physics from lattice QCD at strong coupling

日時 : 1月7日(木) 16時30分~

† 今回は通常と曜日が異なりますのでご注意ください。

場所 : 理学部 物理大学院講義室 (理学部 2号館 2階 2263室)

## 概要

We consider lattice QCD with one massless flavor of staggered quarks, in the strong coupling limit. In this limit, the full phase diagram as a function of temperature and baryon chemical potential can be obtained, including a tricritical point. The high-density phase represents dense nuclear matter. We measure the nuclear potential between two nucleons, and explain the origin of the nuclear attraction in our model. Finally, we measure the masses of atomic nuclei as a function of their atomic number. They are well described by the Bethe-Weizsacker formula.

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