# — 第890回 九大原子核セミナー —

**講師：** Daniel Baye 氏 (Brussels 大学)

**演題：** The $R$-matrix theory

**日時：** 10 月 18 日 (火) 16:00〜

**場所：** 理学部 物理第 3 講義室 (理学部 2 号館 2 階 2249 室)

## 概 要

Two variants of the $R$-matrix method are commonly used.

(i) The "phenomenological" $R$-matrix method inspired by Wigner's original idea is a technique to parametrize various types of cross sections at low energies. It is mainly (or uniquely) used in nuclear physics.

(ii) The "calculable" $R$-matrix method is a calculational tool to derive scattering and bound-state properties from the Schrdinger equation in a large variety of physical problems. It was developed rather independently in nuclear physics and, mostly, in atomic physics.

Both variants are first illustrated by simple examples. Some misconceptions on the $R$-matrix method are discussed. The calculable $R$-matrix method on a Lagrange mesh is presented. It can be applied to the resolution of the resonating-group equation and to various aspects of the CDCC method.

※セミナー後に夕食会を開きます. 参加をご希望の方は下記までご連絡ください.

**連絡先**：**九州大学 理学部 物理学教室 理論核物理研究室**
TEL：092-642-2111 (**内線** 8357)
**蓑茂 工将** (minomo@phys.kyushu-u.ac.jp)

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