Variational Method with Explicit Energy Functionals for Nuclear Matter M. Takano,<sup>ab)</sup> K. Kato,<sup>b)</sup> T. Horikawa,<sup>b)</sup> T. Suzuki,<sup>b)</sup> R. Yokota,<sup>b)</sup> and N. Sakumichi<sup>c)</sup>

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We have been studying the variational method with explicit energy functionals to calculate energies per particle of infinite fermion systems such as uniform nuclear matter and <sup>3</sup>He systems (liquid <sup>3</sup>He).

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## Neutron Matter with the AV6'+UIX potentials Indication of the pion condensation

**Preliminary** 



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