## Department of Physics & Astronomy college of arts & sciences

## Streamlining the Nuclear Force

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The Department of Energy has highlighted the work of adjunct assistant professor Gaute Hagen, postdoc Gustav Jansen, physics faculty Witek Nazarewicz and Thomas Papenbrock, and their colleagues. Their paper, "Optimized Chiral Nucleon-Nucleon Interaction at Next-to-Next-to-Leading Order," discusses the generation of

a two-body nuclear interaction and its application in neutron-rich Oxygen isotopes. This newer model demands fewer computational resources than the traditional approach with three-body forces and reflects good agreement with experimental data. See more at the U.S. Department of Energy Office of Science website:

http://science.energy.gov/np/highlights/2014/np-2014-05-e/ (http://science.energy.gov/np/highlights/2014/np-2014-05-e/).