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Polarizability of ^{40}Ca and ^{48}Ca : Implications for the density dependence of the symmetry energy

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The dipole polarizability of ^{40}Ca has been extracted from a zero-degree (p,p') experiment at RCNP [1]. Together with results from a previous experiment on ^{48}Ca [2] it serves as a test of state-of-the-art ab initio [3,4] and EDF [5] calculations. From the good agreement obtained for both methods one can derive limits on the density dependence of the symmetry energy. These are clearly at variance with those derived [6] from the recently published result of the PREX-II experiment [7].

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Primary author: VON NEUMANN-COSEL, Peter (Institut für Kernphysik, Technische Universität Darmstadt)

Co-authors: FEARICK, R. (Department of Physics, University of Cape Town, South Africa); SIMONIS, J. (Institut für Kernphysik, Universität Mainz, Germany); REINHARD, P.-G. (Institut für Theoretische Physik, Universität Erlangen, Germany); BACCA, S. (Institut für Kernphysik, Universität Mainz, Germany); BASSAUER, S. (Institut für Kernphysik, Technische Universität Darmstadt, Germany); BIRKHAN, J. (Institut für Kernphysik, Technische Universität Darmstadt, Germany); MATSUBARA, H. (Research Center for Nuclear Physics, Osaka University, Japan); NAZAREWICZ, W. (Department of Physics and Astronomy, Michigan State University, USA); PIETRALLA, N. (Institut für Kernphysik, Technische Universität Darmstadt, Germany); PONOMAREV, V.Yu. (Institut für Kernphysik, Technische Universität Darmstadt, Germany); RICHTER, A. (Institut für Kernphysik, Technische Universität Darmstadt, Germany); ROCA-MAZA, X. (Dipartimento di Fisica, Università degli Studi di Milano, Italy); SCHWENK, A. (Institut für Kernphysik, Technische Universität Darmstadt, Germany); TAMIL, A. (Research Center for Nuclear Physics, Osaka University, Japan)

Presenter: VON NEUMANN-COSEL, Peter (Institut für Kernphysik, Technische Universität Darmstadt)

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