

Abstract Submitted  
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**Dependence of isoscaling on the nuclear equations of state** R. GAMBOA, Department of Physics, University of Texas at El Paso, El Paso, Texas 79968, USA, C.O. DORSO, Universidad de Buenos Aires, Buenos Aires, Argentina, C.R. ESCUDERO, J.A. LOPEZ, Department of Physics, University of Texas at El Paso, El Paso, Texas 79968, USA — The dependence of nuclear isoscaling on the stiffness of the equation of state (EOS) was studied using molecular dynamics simulations. Reactions of  $^{40}\text{Ca}+^{40}\text{Ca}$ ,  $^{48}\text{Ca}+^{48}\text{Ca}$  and  $^{52}\text{Ca}+^{52}\text{Ca}$  at beam energies ranging from 20 MeV/A to 85 MeV/A were simulated using the Pandharipande EOS of 535 MeV and compared to previous results obtained with the EOS of 250 MeV. The analysis included a study of the time evolution of this effect and the estimation of the isoscaling parameters  $\alpha, \beta$ . Preliminary results indicate that isoscaling exists at all energies and at all times starting from the early primary isotope distributions all the way to  $5000\text{fm}/c$ . The  $\alpha, \beta$  were found to vary substantially from values obtained with the soft EOS.

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