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Abstract for an Invited Paper  
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### **Coupled cluster calculations of neutron-rich nuclei**

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In this talk I will present recent highlights from ab initio computations of atomic nuclei using coupled-cluster methods with state-of-the-art interactions from chiral effective field theory (EFT). The recent progress in computing nuclei from scratch is based on new optimizations of interactions from chiral EFT, and ab initio methods with a polynomial computational cost together with available super computing resources. The physics advancements I will discuss include: (i) accurate nuclear binding energies and radii of light and medium-mass nuclei, (ii) the neutron distribution and electric dipole polarizability of the nucleus  $^{48}\text{Ca}$ , (iii) and the structure of the rare nucleus  $^{78}\text{Ni}$  from first principles. All these quantities are currently targeted by precision measurements worldwide.