

Addressing the $p\Omega$ femtoscopy correlation function using baryon-baryon effective potentials

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We have generated an updated version of the $p\Omega$ potential for low-energy interactions based on an effective field theory approach. This potential, together with other potentials based either on different parametrizations or lattice QCD, have been used to solve the Schrödinger equation, obtaining the scattering wave functions. Using these wave functions, we have computed the $p\Omega$ femtosopic correlation functions, comparing the results with those published by the ALICE collaboration. Building on this work on the direct problem in femtoscopy, we are starting to work on the inverse problem of computing the potential parameters from the correlation function values using neural networks.

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