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## First covariant high-precision chiral nucleon-nucleon interaction up to next-to-next-to-leading order

We construct the next-to-leading and next-to-next-to-leading chiral nucleon-nucleon interaction in covariant baryon chiral perturbation theory. We show that a rather good description of the  $np$  phase shifts up to  $E_{\text{lab}} = 200$  MeV can be achieved with a  $\chi^2/\text{d.o.f.}$  less than 1. The resulting potential can be employed in ab initio studies of nuclear structure and reactions in a covariant framework.

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