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A study of proton-deuteron scattering in configuration space¹ VLADIMIR SUSLOV, MIKHAIL BRAUN, IGOR FILIKHIN, BRANISLAV VLA-HOVIC, North Carolina Central University, Durham, NC 27707 USA — A new computational method for solving the configuration-space Faddeev equations for the breakup scattering problem [1] has been applied to consider the pd scattering below and above the deuteron threshold. To perform numerical calculations for arbitrary nuclear potential and with arbitrary number of partial waves retained we use approach proposed in [2]. The calculations of the inelasticity and phase-shift for various lab energies were performed with the charge independent AV14 potential. The results are compared with those of other authors [3, 4]. 1. V.M. Suslov and B. Vlahovic, Phys. Rev. C69, 044003 (2004). 2. S.P. Merkuriev, C. Gignoux and A. Laverne, Ann. Phys. 99, 30 (1976). 3. A.Kievsky, J.L Friar, G.L. Payne, S. Rosati, M. Viviani, Phys. Rev. C63, 064004 (2001). 4. A. Deltuva, A.C. Fonseca, A.Kievsky, S. Rosati, P.U. Sauer, and M. Viviani, Phys. Rev. C74, 064003 (2005).

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