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A stabilization mechanism for the low-velocity gaseous detonations with losses ASLAN KASIMOV, ALIOU SOW, King Abdullah Univ of Sci Tech (KAUST), ROMAN SEMENKO, Novosibirsk State University, Russia — Using the reactive Euler equations, we investigate numerically the nonlinear stability of steady-state one-dimensional gaseous detonations in the presence of both momentum and heat losses. Our results point to a possible stabilization mechanism for the low-velocity detonations in such systems. The mechanism stems from the existence of a one-parameter family of steady-state solutions found in Semenko et al. *Shock Waves*, 26(2), 141-160, 2016.

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