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Sougata Dhar* (sougata.dhar@uconn.edu), 341 Mansfield Road, Room 406, Department of Mathematics, The University of Connecticut, Storrs, CT 06269, and Jessica S Kelly and Qingkai Kong. Lyapunov-type inequalities for quasi-linear eigenvalue problems with indefinite weights. Preliminary report.

In this paper we consider a second-order quasilinear problems with indefinite weights. We first obtain several Lyapunovtype inequalities. Then, we apply this inequalities to obtain the lower bound of the first eigenvalue. Furthermore, we discuss spacing between zeros of a solution. Our result is an improvement of some results in the literature. (Received September 13, 2020)