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Bulk viscosity of strange quark matter¹ XINYANG WANG, IGOR SHOVKOVY, Arizona State University, SHOVKOVY'S TEAM — It is known that the interior of neutron stars is made of very dense baryonic matter, but our knowledge regarding the actual state of such matter is incomplete. The way to test the idea regarding the presence of quark matter inside stars is to make predictions regarding physics processes that affect observable features of stars. Bulk viscosity is one of important properties which determines the suppression of the rotational instabilities. In this talk, I will introduce the bulk viscosity of strange quark matter by taking into account the interplay between the nonleptonic and semileptonic weak processes. The result is very important in order to relate accessible observables of compact stars to their internal composition.

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