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Eigenvalue preservation for the Beris-Edwards system

Eigenvalue preservation in the Beris-Edwards system is the property that ensures that Q-tensors remain physical along the flow. The Beris-Edwards system is a simplified model for the evolution of nematic liquid crystals. The preservation of eigenvalues property is known to hold for the evolution in the whole space thanks to the work of Xiang-Zarnescu. In this talk I present a simpler and shorter proof that also applies to the bounded domain case. This is joint work with Xiang Xu and Wujun Zhang.