THEORETICAL ASPECTS OF PROMINENCE OSCILLATIONS

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The theoretical modeling of prominence vibrations has been performed mainly through the analysis of the magnetohydrodynamic normal modes of oscillation of simple equilibrium structures. Research on this topic has concentrated mostly on the oscillatory properties of prominence slabs (i.e. without taking into account the internal thread structure) and prominence fibrils (i.e. introducing some of this inherent internal complexity of prominences, although in a simplified manner). In an attempt to understand the observed strong damping of prominence oscillations, work has also been done on the attenuation of waves in these objects. The achievements in this area are reviewed and some trends for possible future research are given.