

NORMAL MODES AND QUASI-PERIODIC OSCILLATIONS IN MAGNETIZED ACCRETION DISKS

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I will review work done in the last few years, that present unstable normal modes of magnetized disks as an explanation for Quasi-Periodic Oscillations (QPO) in the accretion disks of compact objects (neutron stars or black holes). These instabilities extract energy and angular momentum from the inner region of the disk; they can also re-emit part of this energy as Alfvén waves propagating vertically in the corona, where they could feed a wind or a jet. Their properties point to the role of the vertical magnetic flux threading the disk. The fate of this flux, advected with the accreting gas, accumulating around the compact object, and possibly destroyed by magnetic reconnection, may be a key to understand the long-term behavior and cycles of these sources.