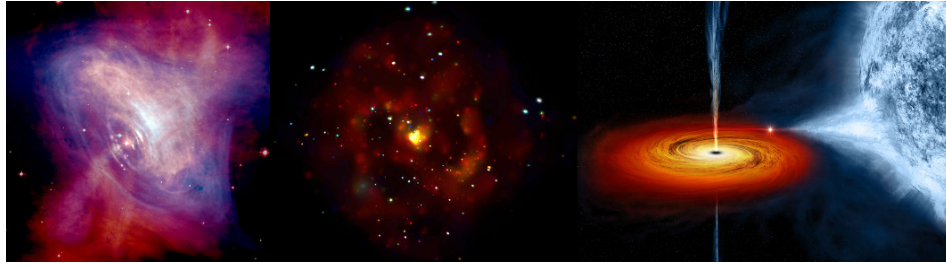


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Double-barrred discs - a possible source of energy in the active galaxies' central engines

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This study examines the inflows and outflows of stars and gas in double-barrred discs. For this, a 3D gravitational model has been set up and studied from the viewpoint of chaotic scattering in open Hamiltonian systems. In the phase space, a bar-driven outflow mechanism has been identified near the primary bar ends and further visualized using Poincaré maps to locate regular or chaotic basins. Our results show that the presence of secondary bars may scale up the inflow of gas towards the galactic centre. Again, the primary bar is responsible for bar-driven outflows that lead to the formation of spiral arms. As a result, for double-barrred discs, extreme baryonic feedback is required to generate spiral patterns. Thus, double-barrred discs may be one of the possible sources of energy generation in the central engines of active galaxies like Seyfert and AGN.

Presentation Type

Oral

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