Instituto de Astronomía Universidad Nacional Autónoma de México Sede Ensenada, Baja California, México

Seminario

Miércoles, 22 de Mayo de 2013 11:00 hrs, Auditorio IA-Ensenada

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"QUARK NOVA INTERPRETATION OF THE 13 keV EMISSION FEATURE SEEN IN THREE ANOMALOUS X-RAY PULSARS."



Anomalous X-ray Pulsars (AXPs) are solitary objects characterized by peristant emission, X-ray pulsations and a rapid spin down. Occasionally AXPs go through a bursting phase which resemble those of Soft Gamma Repeaters (SGRs). Over the past decade, three AXPs have exhibited significant emission features at 13 keV which prove difficult to explain theoretically. Often regarded as cyclotron in nature, we explore the idea that they are indeed atomic transitions, which if true provides a wealth of information concerning the environment around AXPs. This provides strong constraints on theoretical models, including the Quark Nova model which we investigate here.