

Abstract Submitted  
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**Repeating FRBs from Low-twist Magnetars** ZORAWAR WADIASINGH, NASA Goddard Space Flight Center, ANDREY TIMOKHIN, University of Zielona Gora, PAZ BENIAMINI, Caltech, MATTHEW BARING, Rice University, ALEXANDER VAN DER HORST, George Washington University, ALICE HARDING, DEMOS KAZANAS, NASA Goddard Space Flight Center — I will discuss the recently-published magnetospheric model for repeating FRBs generated during short bursts in magnetars with low-twist magnetospheres. We propose FRBs arise during common magnetar short bursts from field dislocations in the inner magnetosphere where pair cascades violently ensue. I will detail current observational evidence supporting the model. We formulate an inversion protocol which directly relates the power-law distribution index of magnetar short burst fluences to that for FRBs. The protocol indicates the FRB energy scales virtually linearly with crust/field dislocation amplitude, if magnetar short bursts prevail in the magnetoelastic regime. We predict a relatively narrow energy distribution for recurrences in repeating FRBs. Requiring magnetic confinement and charge starvation, we obtain a death line for FRBs which segregates magnetars from the normal pulsar population. We convolve the burst energy distribution for individual magnetars to define the distribution of luminosities in evolved magnetar populations.

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