Model pulse profiles of magnetars

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Recently, the pulse profiles in X-ray and soft gamma-ray bands have been detected in AXPs (e.g. 1E 1841-045) and SGRs (e.g. SGR 1806-20). Here, we try to model the pulse profiles considering the magnetosphere of magnetars. We consider the emissions from two regions: the open field line region and the close field line region. The prelimilary similations find that the pulse profiles of magnetar would origin from the close field line region. In addition, the inclination angle and the view angle will significantly effect the pulse profiles of magnetars. The detailed models of the pulse profiles and high energy spectra of magnetar will be pursued in future.