

吉田研セミナー

講演者: Massimiliano De Pasquale氏 (MSSL)

日時: 11月8日 (金) 午後 1:30時 – 3時00分

場所: 青山学院大学 理工学部 L棟 L706b

題目: The peculiar light curve of GRB100814A:
an interplay of forward and reverse shocks?

We show an extensive dataset of gamma-ray, X-ray, UVOIR, and radio observations of the Swift GRB100814A. At the end of the slow decay phase of the X-ray and optical afterglow, this burst shows a conspicuous rebrightening only in the optical band, followed by a fast flux decline in both bands. The optical rebrightening also shows chromatic evolution. Such a puzzling behaviour cannot be explained by a single component model. We discuss other possible interpretations, and we find a scenario that combines long-lived Reverse Shock and Forward Shock fits the temporal and spectral properties of GRB100814 the best. We also mention other GRBs with a behaviour similar to that of GRB100814A, such as 081029 and 100621A.