

Title

David Vartanyan
Advisor: Dr. Christian Ott
Date: April 25, 2014

1 Abstract

2 Introduction

2.1 LGRB-SN Connection

2.2 The Magnetar Model for Long Gamma Ray Bursts

3 Prompt Emission and Magnetic Dissipation

4 Magnetar Dipole Radiation

possibly in appendix

5 Afterglow and Plateau

5.1 Lyons: Spindown Powered Plateau

5.1.1 Assumptions

5.1.2 K-Correction

6 Analysis

6.1 Possible Scenarios Involving a Magnetar as the GRB Engine

7 Conclusions

8 Figures

9 Appendix

References