

# Abstract

Solar flare is a phenomenon during which a large amount of energy is released in various forms. Part of this energy is released in form of different electromagnetic radiation. By analysing hard X-ray spectra of such emission it is possible to derive various parameters of a flare. Thanks to accurate images of solar atmosphere in comparatively high resolution, it is possible to analyse spatial structure of solar flares. By combining data from RHESSI, SDO, GOES, and ground-based observatories, it is feasible to gain an overview of various aspects of solar flares. Combination of multiple different observations of same event will allow us to compare obtained results. The result of this thesis is an analysis of spectra and spatial structures of two selected flares and derivation of their parameters.