

Radio Signature of Coronal Magnetic Fields and Reconnections in Solar Eruptions

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The radio diagnostics plays a crucial role in investigating some important physical parameters and processes in the solar eruptions since the detailed information about these parameters and processes usually cannot be easily deduced from analyzing the data obtained in other wavelengths. Especially, the coronal magnetic fields and reconnections constitute an important aspect for comparing flare/CME theories with observations, including the formation of the shock waves driven by the coronal mass ejections (CMEs), energy conversion via magnetic reconnection inside the current sheet, as well as the fine structures of the current sheet itself. Furthermore, the solar eruptions described by different theoretical models often manifest some specific model-dependent features. So, such diagnostics of radio emission from a specific event may also help to various theoretical models, and to impose necessary constraints on them in order to conduct improvement on them. Some recent works about these topics are briefly reviewed in this talk.