Microwave and X-ray Signatures of Coronal Mass Ejections

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X-ray and microwave imaging of structures associated with coronal mass ejections (CMEs) have provided a wealth of new information towards a better understanding of solar eruptions. I review the recent research based on microwave imaging from the Nobeyama Radioheliograph and X-ray imaging from the Yohkoh Soft X-ray Telescope. I discuss the advances made towards understanding the near surface manifestations of CMEs best observed in X-rays and microwaves. In particular, I discuss (i) the relation between various substructures of CMEs as revealed by coordinated multiwavelength observations, (ii) coronal dimming and eruptive prominences, (iii) timing of Flare, CME and Prominence eruptions, and (iv) Earth-directed CMEs and filament euptions.