## Solar and Stellar Flares

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Solar and Stellar Flares summarizes the current status of research in two areas of astrophysics which, synergetically, have begun to flourish. The Solar Maximum Mission and the coordinate programs of an international consortium of flare star observers together have gathered a new generation of multispectral data. New computational hydrodynamic modeling capabilities are being applied to estimate physical parameters such as density and temperature. Sixteen major reviews are presented along with twelve papers on more specific, invited topics; also included are discussions which followed the presentations and a detailed summary/overview article of the many subjects covered. The flare phenomenon spans an enormous range of energies and wavelengths, time scales and size scales, and environments in which it takes place; moreover, even the basic physical processes are not yet certain. This has, of necessity, led to an unusual diversity of approaches to flare investigation.

This book elucidates some of the underlying connections; as a result it will be useful both as a research tool for those active in these fields, and as a teaching tool for graduate students or scientists in other fields.

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