

## Present and Future of Magnetic Reconnection Study

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More than 60 years have past since the proposal of magnetic reconnection (or magnetic neutral point) mechanism to explain solar flares by Giovannelli. Since then, Sweet-Parker (1957)'s MHD model, Petschek's slow shock model (1964) have appeared. In 1990's, Yokoh and Geotail have discovered a lot of observational evidence of magnetic reconnection in solar flares and magnetospheric substorm. Computer simulation and laboratory experiment of magnetic reconnection have also greatly advanced in these 10-20 years.

Now is the golden age of magnetic reconnection study in a wide area including solar physics, magnetospheric physics, laboratory plasma physics, and theory and computer simulations.

More recently, astrophysicists began to recognize the importance of magnetic reconnection in various astrophysical explosive phenomena, and a new research field,