

# **Magnetic Reconnection:** Explosive Energy Conversion in Space Plasmas

## **Workshop 27 June to 1 July 2022**

Magnetic reconnection converts magnetic energy to kinetic and thermal energy in magnetized plasmas. Sudden release of magnetic energy due to magnetic reconnection is responsible for substorms and solar flares and is detected at different wave-lengths in astrophysical phenomena such as stellar flares and gamma-ray bursts. The objectives of the workshop are to assess recent progress in magnetic reconnection research resulting from the Magnetospheric Multiscale mission, theory and simulations, and solar and astrophysical modeling and observations.

### **Convenors**

#### **Rumi Nakamura**

IWF-OEAW,  
Graz, Austria

#### **Jim Burch**

Southwest Research Institute  
San Antonio, USA

#### **Jim Drake**

University of Maryland  
College Park, USA

#### **Barbara Giles**

NASA-GSFC  
Greenbelt, USA

#### **Michael Hesse**

NASA-AMC  
Mountain View, USA

#### **Masahiro Hoshino**

University of Tokyo  
Tokyo, Japan

#### **Benoit Lavraud**

Laboratoire d'Astrophysique de Bordeaux,  
CNRS, Bordeaux, France

#### **Roy Torbert**

University of New Hampshire  
Durham, USA



INTERNATIONAL  
SPACE  
SCIENCE  
INSTITUTE