

## “Relativistic Reconnection, Shocks & Turbulence”

**J.G. Kirk** Particle Acceleration in Relativistic Jets

**B. Reville** Numerical Approaches to Particle Acceleration in Astrophysical Plasmas

**R. Schlickeiser** Diffusive Cosmic Ray Acceleration at Relativistic Shock Waves

**M. Kadler** TANAMI Blazars as Possible Sources of the IceCube PeV Neutrinos

**A. Spitkovsky** Injection and Acceleration in Astrophysical Shocks

**M. Lemoine** Particle Acceleration at Relativistic Shocks

**K.-I. Nishikawa** Radiation from Accel. Particles in Relativistic Jets with Shocks & Shear-flow

**J. Niemiec** Collisionless High Mach Number Shocks in Kinetic Simulations

**H. Li** Particle Acceleration in Magnetically Dominated Environment

**S. Zenitani** Numerical Modeling of Rel. Reconnection: Kinetic, Two-fluid, and MHD Simulations

**L. Sironi** Relativistic Magnetic Reconnection in Astrophysical Jets

**J. Petri** Explosive Reconnection of the Double Tearing Mode in Rel. Plasmas: ... Crab Nebula

**M. Hoshino** Collisionless Accretion Disks: Role of Reconnection in Anisotropic Plasmas

**D. Uzdensky** Relativistic Magnetic Reconnection in Jets: Particle Accel. and Radiation Production

**J. Zrake** Inverse Cascading of Magnetic Energy in Relativistic MHD Turbulence

**C. Yu** Relativistic Reconnection Driven Giant Flares of Soft Gamma Repeater

# Summary: main statements

We are ultrarelativistic even so early in the morning.

Cen A is looking back for us !

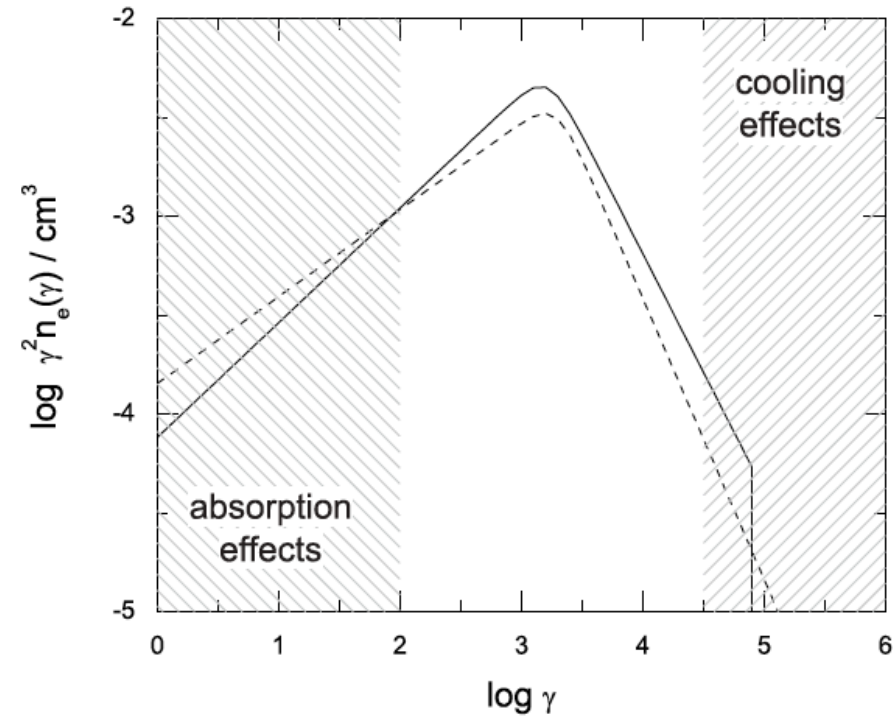
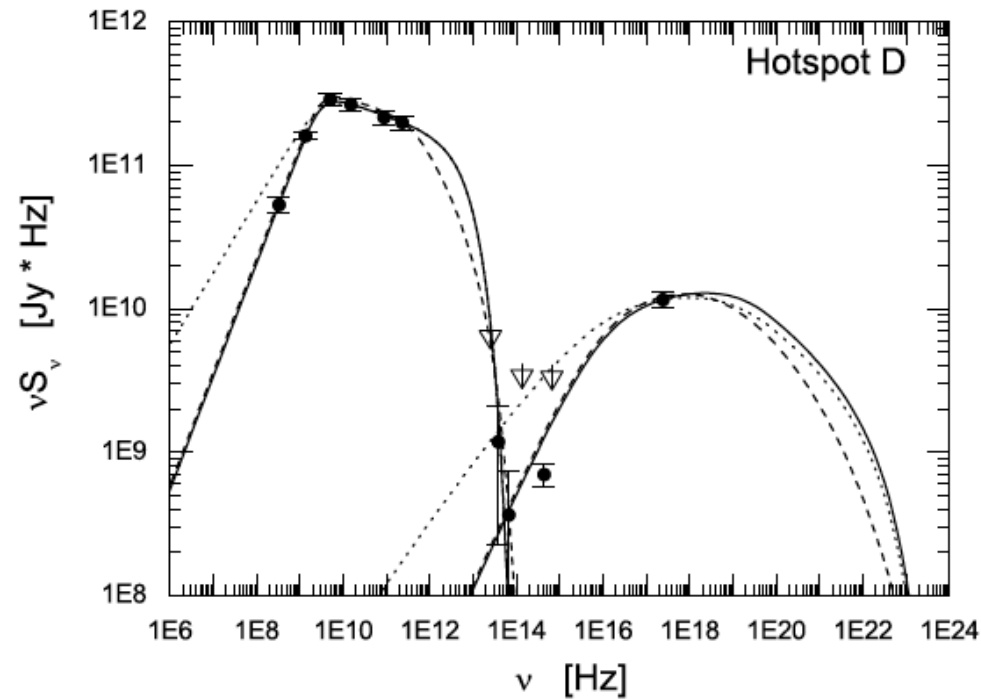
Most professional picture in the MHD reconnection industry.

Visiting Starbucks cofeteria can easily replace lengthy PIC simulations.

Are we ultrarelativistic also in the evening ?

Check against observations in "CLEAN" cases

## Cyg A hot spots



Should we consider for the particle acceleration modelling the media consisting only of CR particles and B ?

What is the role of charge separation processes in rel. plasmas / jets for particle acceleration or radiative phenomena ?