

Vector Magnetogram Comparison Workshop
19-21 October, 2010
Stanford University

Tuesday, October 19 – Allen CIS Building Room 101 until lunch

8:15 am: Coffee Available (Breakfast not provided)

8:45 am: Introductions and general remarks (Pevtsov//Hoeksema)

8:55 am: Status of SDO/HMI and SOHO/MDI (Hoeksema)

9:05 am: Status of HMI Vector data and processing (Liu/Centeno-Elliott/Leka)

9:20 am: Thoughts on Calibration of HMI Vector Data (Schou)

9:35 am: Status of Hinode Vector data and processing (?)(could replace with MDI/GONG/Mt Wilson longitudinal status if needed)

9:50 am: Status of SOLIS Vector data and processing (Harvey/Pevtsov/Bertello)

10:05 am: Status of FIRS Vector data and processing (Lin/Jaeggli ?)

10:20 am: Break

10:50 am: Discussion of data comparison issues:

- 1) Criteria for comparisons: how good is good enough?
- 2) How do we compare magnetograms observed at different wavelengths, different spatial scale, and different inversion techniques? Are these serious or minor issues? Will we ever be able to compare such "incomparable" magnetograms, or we are kidding ourselves?
- 3) Specific issues:
 - a. spatial resolution
 1. to do with IQUV or inversion
 2. which method of spatial averaging to use
 - b. temporal resolution
- 4) What are the judgment criteria for "good" vs. "poor" correlation between two magnetograms? For example, scatter plots may show overall good correspondence, but some data points that deviate may occur in the vicinity of the sheared neutral line, which is characteristic of an incoming flare.

11:50 am: Organize afternoon tasks: Data comparisons

1. Comparison of IQUV spectra
2. Compare inversion results to show the effects of
 1. initial guess
 2. minimization technique
 3. other assumptions

12:15: Lunch at local eating places

1:30 pm: Work on data comparison tasks (Cypress, Cedar, A&A Conference Rooms)

3:30 pm: Break in Cypress Conference Room

4:00 pm: More work on comparison tasks

5:30 pm: Adjourn

7:00 pm: Dinner at Fish Market – Details to be provided

Wednesday, October 20 – Allen CIS Building Room 101 until lunch

8:15 am: Coffee Available (Breakfast not provided)

8:45 am: Discussion of Tuesday afternoon comparison results

10:15 am: Break

10:45: Simulated data introduction (Stein/Leka/Parchevsky)

11:15: Inversion pitfalls (Bommier/Leka)

11:45: Organize afternoon tasks: Inversion tests on simulated data

Noon: Lunch at local eating places

1:30 pm: Work on inversion tasks (Conference rooms in Cedar, Cypress, P&A)

3:30 pm: Break

4:00 pm: More work on inversion tasks

5:30 pm: Adjourn

7:00 pm: Dinner TBD

Thursday, October 21 – Physics and Astrophysics Conference Room 102/103

8:15 am: Coffee Available (Breakfast not provided)

8:45 am: Discussion of Wednesday afternoon inversion results

10:15 am: Break

10:45 am: Discussion of next steps:

- 1) Improvements: What, how, who, when?
- 2) Publications?

11:45 am: Final Remarks (Hill/Pevtsov//Hoeksema/Pesnell)

Noon: Adjourn