Second Vector Magnetogram Comparison Workshop
Topics of Discussion & Plans

Direct IQUV Comparisons &
Observing campaign with simultaneous Themis/HMI/Hinode plus SOLIS
A. Sainz Dalda, V. Bommier, S. Jaeggli, A. Pevtsov, R. Centeno Elliot

Confidence in Inversions – complicated task with many elements
A. Norton, KD Leka, A. Pevtsov, V. Bommier, B. Harker, R. Centeno Elliot
Chi2 Meaning – complex because of weights, not comparable
Need objective/absolute measure of quality of result for comparison
Individual Profile Comparisons
Fitting Weights / Relation to Noise and Sensitivity
Other Parameters to measure quality/confidence
Convergence Measures - Each instrument to provide solution 'quality' info
Use of Standard Libraries
Local minima vs global minima in fit

Initial Guess Dependence – methods include fixed, random, quick look, prior knowledge

Filling Factor – how to distinguish field strength and filling factor

Coordinate Geometry Specifications -Solar/Instrumental. Uncertainty propagation a problem
A. Pevtsov, T. Hoeksema

User's Guide
M. DeRosa, T. Hoeksema

Inversion of weak field / quiet sun and transition to strong field in global inversions
Different methods/weights applied in different regions make discontinuities
Averaging spatially before inversion in weak regions

Identify and then Fix Bad Pixels – Urgent + Long term approaches
NEEDS ATTENTION
Prejudices and additional constraints
Pre/Post processing of vector B for various purposes

Quality of HMI's S5 IQUV processing
Decided that S5 is good enough to proceed

Inversion Competition/Conferences &
Synthetic Data & Instrument Models
B.Stein, A.Pevtsov, S.Couvidat, **KDLeka**, Meudon/Aulanier(?)