



## 1st CASSDA-SOLARNET Workshop

“The challenge of retrieving ready-for-science data from ground-based solar observations. Getting the most out of your data”

Freiburg, Germany, 18-20 February, 2014

### PRESENTATIONS

#### TUESDAY, FEBRUARY 18

Welcome (S. Berdyugina)

[SOLARNET Introduction \(M. Collados\)](#)

[CASSDA/Workshop Introduction \(N. Bello González\)](#)

#### **SESSION 1 Image reconstruction - 'What your pixel doesn't want to tell you'**

Chair: R. Schlichenmaier

S 1.1 *Introduction* [KISIP - a short overview \(F. Wöger\)](#)

S 1.2 *Introduction* [MOMFBD - a short overview \(M. Löfdahl\)](#)

S 1.3 *Introduction* [Longtime exposure image reconstruction \(T. Waldmann\)](#)

COFFEE BREAK

S 1.4 *Introduction* [Application of reconstruction techniques on imaging and imaging spectro-polarimetric data \(Ch. Beck\)](#)

S 1.5 *Discussion* Comparison of data samples: Speckle techniques vs. MOMFBD vs Longtime exposure: Intensity contrast, artifacts, power spectrum. Comparison of physical parameters. Difficulties in PSF retrieval and noise issues (Discussion leader -DL: M. Löfdahl)

S 1.6 *Introduction* [Reconstruction with phase diversity using analytical PSFs \(A. López Ariste\)](#)

LUNCH

## SESSION 2 Data dissemination - 'Getting your data to the solar community'

Chair: C. Fischer

S 2.1 *Review talk* Lessons learnt in providing integrated access to space- and ground-based observations (R. Bentley)

S 2.2 *Introduction* [Visualization tools \(j\)Helioviewer and event searching \(HEK\) \(D. Müller\)](#)

S 2.3 *Discussion* Why is some data more used than other? How to promote your data archive or VO? How to promote your instrument? What makes data accessible? (DL: S. Haugan)

*Reception at KIS*

### **WEDNESDAY, FEBRUARY 19:**

## SESSION 3: Data calibration I - 'Of artifacts, noise, $\lambda$ -wiggles and other unwanted guests'

Chair: W. Schmidt

S 3.1 *Introduction* [Slit spectrographs and their issues \(D. Elmore\)](#)

S 3.2 *Introduction* [FPI systems, wavelength shifts & lambda fluctuations \(F. Kneer\)](#)

S 3.3 *Discussion* Cavity errors and instrumental wavelength shifts: CRISP, TESOS and IBIS cases. How to deal with them (DL: O. von der Lühe)

*COFFEE BREAK*

S 3.4 *Introduction* [Stray light contamination \(A. Feller\)](#)

S 3.5 *Discussion* Stray light, what is it? Can we measure it? Can we correct for it? (DL: A. Feller)

*LUNCH*

## SESSION 4: Data calibration II - 'Tidying up your Stokes profiles'

Chair: R. Rezaei

S 4.1 *Introduction* [Instrumental polarisation calibration: measuring the effect of telescope crosstalk and crosstalk correction, polarization fringes \(M. Collados\)](#)

S 4.2 *Discussion* Which polarimetric sensitivity is actually required? SNR or how to measure the weak field. Polarimetric efficiencies: better Q, U signal at expenses of V? Spectral resolution vs SNR, is there an optimum trade-off? (DL: M. Collados)

S 4.3 *Introduction* [Fringe removal with Compressed-sensing \(A. López Ariste\)](#)

S 4.4 *Introduction* [Spatially coupled inversion of spectro-polarimetric data \(M. van Noort\)](#)

COFFEE BREAK

S 4.5 *Introduction* [PCA-filtered deconvolution \(A. López Ariste\)](#)

S 4.6 *Discussion* Are these methods (S 4.4 and S 4.5) applicable to ground based observations? How much data-postprocessing can your data take? How can we deal with noise issues? (DL: A. López Ariste)

**SESSION 5: On the horizon**

**Chair: O. von der Lühe**

S 5.1 *Introduction* [Fast-SP \(A. Feller\)](#), [LARS \(HP Doerr\)](#), [HELLRIDE/CARMA \(J. Staiger\)](#)

S 5.2 *Discussion* Expectations for new instruments, e.g., VTF (DL: W. Schmidt)

*Social Event*

**THURSDAY, FEBRUARY 20**

**SESSION 6: Data pipelines I - 'Concepts and codes. Towards an automated data handling'**

S 6.1 *Introduction* [Challenges for integrated data centers for ground-based solar data \(K. Reardon\)](#)

S 6.2 *Introduction* Existing packages: [CRISP \(J. de la Cruz\)](#), [CASSDA GUI \(J. Löhner-Böttcher\)](#) & [THEMIS packages \(B. Gelly\)](#)

COFFEE BREAK

S 6.3 *Introduction* [CASSDA - driven by the needs of the solar ground based community \(C. Fischer\)](#)

S 6.4 *Discussion* Unifying existing codes. Keeping it general and avoiding duplicity. Should there be a software pool for ground-based observatories where one can load instrument specific routines? (DL: B. Fleck)

LUNCH

**SESSION 7: Data pipelines II - 'Data format and metadata standards, data level product - 'Providing science-ready data in a comprehensible and unified form'**

**Chair: M. Roth**

S 7.1 *Introduction* Current data standards and formats (F. Hill)

S 7.2 *Discussion* Standardised data headers, (WCS) image coordinates, data quality for ground observations (DL: H-P Doerr)

COFFEE BREAK

S 7.3 *Introduction* [The Community Spectro-Polarimetric Analysis Center - CSAC \(R. Centeno\)](#)

S 7.4 *Discussion* Which data level should be provided to the community? (DL: R. Centeno)

[Summary. Outlook \(N. Bello González\)](#)

### **EXTRA SESSION: Stray light contamination**

On Friday, February 21, we had an extra session at KIS on 'Stray light contamination' (continuation of Session S3.4)

Contributions:

G. Scharmer: [What is the source of straylight in SST/CRISP data?](#)

D. Soltau: [Stray light. Where has all the contrast gone?](#)

F. Kneer: [Parasitic Light](#)

R. Schlichenmaier: [Some issues on stray light in GREGOR](#)