SOLAR SIMULATIONS FOR THE ATACAMA LARGE MILLIMETER OBSERVATORY NETWORK

Newsletter 2 – January 2015

Network activities in IV/2014

During the last quarter of 2014, SSALMON has been presented at two major conferences:

- (1) Living With a Star (LWS)/Hinode/IRIS Science Meeting, Portland, USA (Nov. 2-6).
- (2) Revolution in Astronomy with ALMA The 3rd year, Tokyo, Japan (Dec. 8-12).

As a result, the network has grown to 49 members and now includes affiliations in Switzerland and Sweden

The main points in this newsletter concern the Tokyo meeting and the progress with the SSALMON overview article(s). Furthermore, we congratulate A. Parmer for successfully finishing his master thesis on "Imaging the Solar Chromosphere with the Atacama Large Millimeter/submillimeter Array" at the University of Oslo, Norway, in connection with SSALMON.

The ALMA conference in Tokyo

The conference had about 300 participants from a broad range of fields within astrophysics. The main focus was on results from actual ALMA observations. Unfortunately, there was no oral presentation about solar physics despite the fact that there was a session named "Stellar Evolution and the Sun". However, V. Bujarrabal (Observatorio Astronómico Nacional, Madrid) presented three slides prepared by us, which contained a brief overview over solar science and pointers to our posters. In total, we presented six posters in the corresponding poster session, among them one on SSALMON. All these posters had a consistent header with SSALMON and SolarALMA logos to demonstrate our joint effort. This way, we made sure that solar physics was very visible even although the scientific frame of the conference was very broad and the solar mode is still in the commissioning phase. There are some photos with impressions of the conference on the second page of this newsletter.

Announcement of meeting

IUGG/IAGA Jun 22, 2015 - Jul 2, 2015, Prague

http://www.iugg2015prague.com/iaga-symposia.htm

Check out IAGA symposia A28, A29, A30, A32.

The abstract deadline is January 31st!

SSALMON Overview Papers

An amazing number of you expressed interest in contributing to the SSALMON overview article. Consequently, we decided to split the article into two:

- (1) A short article with 29 authors, which focuses on the scientific infrastructure and gives only a brief overview over potential science cases. This article has been submitted to **Advances of Space Research** as part of the proceedings of the European Solar Physics Meeting (held in September 2014 in Dublin).
- (2) A long and comprehensive review article, in which the potential of solar ALMA observations and related simulations is discussed in detail. The editors of **Space Science Reviews** are awaiting our submission in early February.

The second article is currently under work. The authors of the first article are again included but it is still possible to join and to contribute to this extensive review. So please send an e-mail to **sven.wedemeyer@astro.uio.no** asap if you are not yet included but want to join. The manuscript will be circulated before end of January so that we can discuss, improve and finalize the content.

The Fifth Solar ALMA Campaign

The fifth solar ALMA campaign took place in early December - at the same time as the conference in Tokyo. The international team included several SSALMON members and worked on both single-dish and interferometric observations, partially in co-ordination with other telescopes (incl. IRIS, Hinode, BBSO). The data is currently post-processed. We are looking forward to some new exciting results.

Call for Expert Teams

The call for **expert teams**, which will work on specific topics related to ALMA, will be send out in a separate e-mail before end of January.

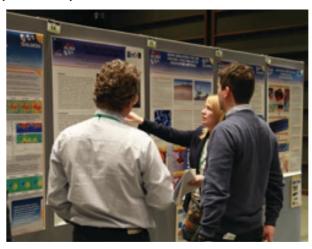
With best regards,
On behalf of your SSALMON team,
Sven Wedemeyer (sven.wedemeyer@astro.uio.no)

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REVOLUTION IN ASTRONOMY WITH ALMA - THE 3RD YEAR Tokyo, Japan (Dec. 8-12).



All six SSALMON-related posters with a common header next to each other, conveniently positioned in the lecture hall.



All three attending solar physicists gathered for a discussion in the poster area (from left to right: G. Fleishman, M. Loukitcheva, S. Wedemeyer).

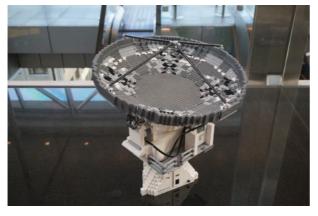


One of the three slides in the overview talk in the session "Stellar Evolution and the Sun", kindly presented by Valentin Bujarrabal.

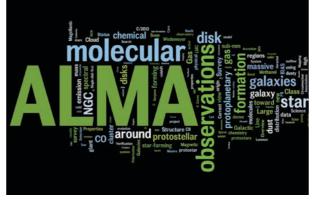
16:00 - 16:30	(invited) Results from ALMA observations of nebulae around evolved stars	
10.00	Valentin Bujarrabal, Observatorio Astronomico Nacional	

Stellar Evolution and the Sun				
E1	Sven	Wedemeyer	ALMA's high-cadence imaging capabilities for solar observations	
E2	Sven	Wedemeyer	Solar ALMA observations ? A revolutionizing new view at our host star	
E3	Sven	Wedemeyer	SSALMON - The Solar Simulations for the Atacama Large Millimeter Observatory Network	
E4	Sven	Wedemeyer	Fast Single-dish Scans of the Sun using ALMA	
E5	Maria	Loukitcheva	Probing the Sun with ALMA: observations and simulations	
E6	Gregory	Fleishman	Solar ALMA: observation-based simulations of the mm, sub-mm, and context emissions from active regions	

While solar physics was only very briefly mentioned in the overview talk, we dominated the corresponding poster session with 6 out of 11 contributions.



Steerable LEGO model of a 12-m ALMA antenna.



Word cloud of the most frequently used words in the conference as presented in the conference summary talk by Christine Wilson.