Subject: [allemploy] BIWEEKLY CALENDAR OF THE ALMA PROJECT at NRAO

From: "Al Wootten" <awootten@nrao.edu>

Date: 11/11/2004, 12:09 PM

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BIWEEKLY CALENDAR OF THE ALMA PROJECT at NRAO October 25, 2004 -- November 8, 2004

******** LAST FORTNIGHT********************* Apologies for delayed delivery of this. More than 230 potential ALMA and Herschel users gathered in Paris for the Dusty and Molecular Universe conference, which focussed on the science the community expects to reap from ALMA and Herschel. Paul van den Bout spoke the origins of ALMA, and Carlos de Breuck and John Richer presented the level ALMA science requiremets from the newly approved Project Plan v2. Project Scientists Wilson and Wootten attended as members of the SOC. The conference was acclaimed as a success; presentations may be viewed online at: http://aramis.obspm.fr/DUSTY04/main.php On 1 November a small celebration will be held by members of the JAO, the Board, and others to inaugurate the interim ALMA facilities in Santiago. Afterward, the JAO will lead the Board north for two days of meetins at ALMA Camp on the site of the Operations Support Facility. ______ Felix Mirabel will gradually assume ESO duties formerly performed by Hofstadt and Danielle Alloin in Chile. Past issues of this Calendar may be viewed at http://www.cv.nrao.edu/~awootten/mmaimcal/ALMACalendars.html General Happenings Santiago: Opening of Interim ALMA Headquarters SPdA: ALMA Board meets at ALMA Camp at site of future OSF Please see the October NRAO Newsletter for a report. DAILY CALENDAR (Times EDT) Mon 25 October Tue 26 Registration for Dusty04 Wed 27 DUSTY04, Paris Thu 28 DUSTY04, Paris Fri 29 DUSTY04, Paris concludes

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- * 27-29 Oct -- Dusty and Molecular Universe Paris
- * 29 Oct -- ANASAC Telecon
- * 1 Nov -- ALMA JAO and Executives Face-to-face Meeting, Santiago
- * 2-3 Nov -- ALMA Board Face-to-face Meeting, OSF, near San Pedro de

Atacama

- * 5 November -- ANASAC Telecon
- * 9 November -- ASAC Telecon
- * 16 November -- Science IPT Telecon
- * 2 December -- ALMA Board Telecon
- * 5-7 Jan 2005 -- UNSC URSI Boulder meeting Commission J
- * 6 Jan 2005 -- ANASAC Telecon
- * 11 Jan 2005 ALMA Town Meeting, AAS San Diego
- * 27 Jan 2005 -- ALMA Board Telecon

******* TECHNICAL NEWS

EVLA Memo No. 84 Solving for the antenna based pointing errors S. Bhatnagar, T.J. Cornwell and K. Golap National Radio Astronomy Observatory

Abstract: The imaging dynamic range of an aperture synthesis telescope for mosaicing and for fields with significant flux throughout the antenna primary beams can be limited by the knowledge of the individual primary beams projected on the sky. For high dynamic range imaging of such fields, one requires an accurate measurement of the shape of the primary beams and the pointing offsets as a function of time. The effect of antenna pointing errors remain separable in the visibility domain. With at least two, well separated sources along the RA and Dec axis each to constrain the solutions, it is possible to solve for these errors in an antenna based fashion in the visibility domain.

Here we analyze the effect of antenna based pointing errors on the imaging dynamic range and fidelity and present an algorithm to solve for these errors using a model for the sky brightness distribution. For a typical L-band eVLA simulation with typical pointing errors for the VLA antennas, the RMS noise can be reduced by a factor of ~10 using this algorithm. The improvement in the image fidelity is even larger. The formulation given here can be further extended to include other direction dependent effects - specially for application to mosaicing observation. Extension of this work for such, more sophisticated solvers is in progress.

View a pdf version of EVLA Memo #84 at: http://www.aoc.nrao.edu/evla/geninfo/memoseries/evlamemo84.pdf

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| INTEREST******************** |
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| Please send information for upcoming calendars by Friday evening of the preceding biweekly period to Jennifer Neighbours or Al Wootten via e-mail (jneighbo@nrao.edu or awootten@nrao.edu). |
| <u> </u> |
| The calendar will be issued between late Friday and sometime on Monday by e-mail |
| to all NRAO scientific staff members and anyone else interested. A specific |
| mailing list, alma-info, has been created for anyone wishing to receive it. Past issues |
| are now available at |
| http://www.cv.nrao.edu/~awootten/mmaimcal/ALMACalendars.html |
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| Allemploy mailing list |

Allemploy mailing list

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http://listmgr.cv.nrao.edu/mailman/listinfo/allemploy

-Attachments:-

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