Home

Comet Lovejoy Workshop Homepage

March 21-22, 2012

Boulder, Colorado, USA

UCAR Center Green FL2 (**Click for directions**)

On Dec 16, 2011, the recently discovered comet C/2011 W3 (Lovejoy) became instantly famous. Comet Lovejoy not only survived perihelion but its journey around the Sun was chronicled by a dizzying array of solar and astrophysical missions. There is much to be learned from this and other members of the Kreutz sungrazing family, but the only sure way to maximize the return is to bring different science communities together.

This two-day workshop is for those willing to put in hard work and bring serious, thoughtful discussion to the table. It is imagined that collaborations will be established that will possibly survive until the next surviving sungrazer.

With registration, you will have access to a collaborative wiki site that will be used to share data and ideas prior to and probably during and after the workshop.

Registration Fee $50 (**Click here for Registration**)

Select "Comet Lovejoy Workshop" from the pull down menu.

Hotel

We have not made any special arrangements with local hotels. The most convenient access to the conference facility is from the Marriott Residence Inn Boulder, located at 3030 Center Green Drive. A very short walk to the conference site.

Agenda (*Tentative*)

Wednesday, March 21

08:30-12:00 Introductory/plenary talks

08:30-08:50 Introduction

08:50-09:30 Comets in general (A'Hearn)

09:30-10:05 Sungrazers (Knight)

10:05-10:35 -Break-

10:35-11:10 Near-Sun & corona environment (Schrijver)

11:10-11:35 Dust and mass loss from comets I (Lisse)

11:35-12:00 Dust and mass loss from comets II (Brown)

12:00-13:00 -Lunch-

13:00-14:30 Observation summaries (Session coordinator: Biesecker)

13:00-13:20 LASCO and STEREO observations (Battams)

13:20-13:40 Non-Sun observing instruments (Knight)

13:40-14:00 SDO/AIA observations (Schrijver)

14:00-14:15 X-ray observations (Saar)

14:15-14:30 Other near-Sun comets (Jones)

14:30-15:10 Orbital considerations: expected vs. observed (Session coordinator: St. Hillaire)

14:30-14:40 Orbit determination through coronagraph observations (Battams)

14:40-15:00 Determining the orbit of Lovejoy (Chodas)

15:00-15:10 Comparing EUV positions and extrapolated orbit data of Lovejoy (Saint-Hilaire)

15:10-15:30 -BREAK-

15:30-16:50 Mass loss, sublimation, fragmentation (Session coordinators: Brown & Lisse)
Contributions from: Chodas, Jone, Keller, Weissman

including Mass Loss and Dust Morphology from STEREO A&B Images (Chodas)

16:50-18:00 Interpretation of spectral observations (Session coordinator: Raymond)

16:50-17:10 UV Spectra (Raymond)

17:10-17:30 Optical spectra of historical sungrazers (Knight)

17:30-17:50 Optical magnitudes in white light vs a narrow orange filter (Lamy)

17:50-18:00 Discussion

Thursday, March 22

08:30-09:30 Emission mechanisms (Session coordinator: Bryans)

08:30-08:50 X-ray and UV emission from charge exchange (Bodewits)

08:50-09:10 EUV emission detected by AIA (Bryans)

09:10-09:30 Discussion

09:30-09:50 -BREAK-

09:50-11:30 (MHD of the) Corona-tail interactions (Session coordinator: Schrijver)

09:50-10:05 Observations in the context of coronal MHD (Liu)

10:05-10:25 Sun-comet plasma interactions (Jia)

10:25-10:45 How might we learn about the corona from sungrazing comets (Linker)

10:45-11:05 Solar wind speed from the tail of Lovejoy (Jones)

11:05-11:25 Multi-directional observations of the tail features with EUVI and AIA (Battams)

11:25-11:45 Discussion

11:45-12:15 Expectations for future sungrazers (Session coordinator: Knight)

11:45-12:00 Dynamical history of the sungrazers (Weissman)

12:00-12:15 Expectations for future sungrazers based on historical observations (Knight)

12:15-13:15 -Lunch-

13:15-15:00 Summary of discussions and presentations, and discussion of the new avenues opened by comets in corona
panel of coordinators: St. Hillaire+ Brown/Lisse + Raymond + Bryans + Schrijver/ ...[TBC] + Knight

15:00-16:30 Discussion and plans for the scientific analysis of the observed events + Plans for future observing of sungrazers approaching the Sun
Session coordinator/speaker/summarizer: Knight

contribution from Weissman

16:30-17:00 Meeting summary and plans for the future
Session coordinator/speaker/summarizer:

Schrijver <coronal physics>

Lisse <cometary physics>

Raymond <emission mechanisms>

Science Organizing Committee

John Raymond

Karel Schrijver

Doug Biesecker

Matthew Knight

Carey Lisse

Dean Pesnell

Local Organizing Committee

Doug Biesecker

Scott McIntosh

Amir Caspi

Ransom Christofferson

Wendy Hawkins

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Jan 15, 2014 • attached by Ransom Christofferson

LOVEJOY
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Lovejoy Sungrazer
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