

**Solar Systems and Planetary Studies - Report to CASCA board (June 1, 2006)**

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**Minutes of the SSPS meeting on 5 June 2006 - from Peter Brown, Chair**

Since the previous SSPS meeting held in June, 2005 (minutes submitted to the CASCA board in August, 2005), membership has not changed (see below). The annual SSPS meeting for 2006 will be held May 31, 2006; a more detailed set of minutes from the yearly SSPS meeting will be available after the June 1 CASCA board meeting [see below]. Additional membership changes are expected to be proposed at that time and will be forwarded for approval to the CASCA board.

In brief, the SSPS primary activity during the last year has been to organize a community-wide Planetary Science workshop to promote interaction amongst SSPS advisors/members and the broader Canadian Planetary Science community as a whole. This 1 ½ day workshop (agenda attached at the end) is aimed at raising awareness of the high quality science being performed by Canadian planetary scientists and facilitating an informal exchange of ideas and generally increasing the level of personal contact among disparate sub-groups in the Canadian planetary science community. By linking this workshop with the annual CASCA meeting, it has also been possible to encourage sufficient numbers of SSPS affiliates to attend the CASCA meeting, helping to produce a Planetary Science session at the annual meeting.

Current SSPS membership is:

P. Brown (Chair - term ending 7/2006)  
7/2004 - 7/2007 : J.J. Kavelaars  
6/2004 - 7/2007 : G. Srinivasan  
7/2006 - 7/2008 : A. R. Hildebrand  
7/2006 - 7/2008 : J. Hahn

The current advisory committee membership as of 07/2005 is:

Committee Advisors :

Y. Amelin (Australian National University,  
cosmochronology)  
P. Artymowicz (University of Toronto at Scarborough)  
D. Balam (University of Victoria, Asteroids)  
E. Cloutis (U Winnipeg, planetary spectroscopy)  
M. Connors (Athabasca, Space Physics)  
J. Drummond (U Toronto, Atmospheric physics)  
M. Duncan (Queen's University, solar system dynamics)  
M. Jellinek (University of British Columbia)  
P. King (University of Western Ontario)  
R. Pudritz (McMaster, protoplanetary disk physics)  
P. Jedicke (Royal Astronomical Society of Canada)  
J. Matthews (UBC, Extrasolar planet searches)  
P. Wiegert (Queen's, solar system dynamics)  
K. Kyser (Queen's, isotopic chemistry)  
G. Southam (University of Western Ontario)(  
G. Shepard (York, planetary atmospheres)  
D. Weis (UBC, isotopic cosmochemistry)  
Y. Wu (CITA, planetary astrophysics)  
A. Yau (U Calgary, space physics)

## Solar System and Planetary Studies (SSPS) Committee Minutes – June 5, 2005

Calgary CASCA meeting

1230 start time

Present:

P. Brown U. Western Ontario (Chair), JJ Kavelaars (HIA), G. Srinivasan (U Toronto)  
(Committee Members)

B. Gladman (UBC) (Advisory Committee)

Absent

A. Hildebrand, J. Hahn

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Agenda

- A. Minutes of previous meeting (at Whistler 2004)
- B. Current Membership of SSPS committee
  - Membership changes for 2005-06
- C. Last year's activities
  - Whistler Planetary Science Summer School
  - Peter Wall Institute Workshop
- D. National Planetary Science structures
  - Relations to MIAC/CSA/JCSA
  - NSERC
  - LRP Midterm review
- E. Plans for activities/meetings in 2006
  - CASCA sessions in 2006?
- F. Planetary Science in Canada – where do we go from here?
- G. Possibility of DPS 2008 or 2009? Impacts/small bodies workshop in 2007?
- H. Other business

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A Minutes reviewed and accepted from 2005 (Srinivasan and Kavelaars)

-Brief review of SSPS history

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B. Proposed Membership for 2006-07

In order to have sufficient input we proposed to increase committee membership to six members at any one time; this seems necessary to have at least 3 attend any SSPS meeting.

[Summary: suggestions were made to the Board re new chair and membership. JJ Kavelaars was approved as the new chair. The approved names of members and dates of appointment are kept up to date on the CASCA web site.]

Advisory committee Membership– Additional potential advisory members to be approached; S. Stanley (U of T as of September – to be approached), R. Gehnt (U of T), M. Beech (Campion College), I. Coulson (Campion College).

The current advisory committee membership as of 07/2005 is:

Committee Advisors :

Y. Amelin (Geol. Survey Canada, cosmochronology)  
P. Artymowicz (University of Toronto at Scarborough)  
D. Balam (University of Victoria)  
M. Campbell-Brown (University of Western Ontario)  
E. Cloutis (U Winnipeg, planetary spectroscopy)  
M. Connors (Athabasca, Space Physics)  
J. Drummond (U Toronto, Atmospheric physics)  
M. Duncan (Queen's University, solar system dynamics)  
M. Jellinek (University of British Columbia)  
J. Kavelaars (HIA, Solar System observational studies)  
P. King (University of Western Ontario)  
R. Pudritz (McMaster, protoplanetary disk physics)  
P. Jedicke (Royal Astronomical Society of Canada)  
J. Matthews (UBC, Extrasolar planet searches)  
P. Wiegert (Queen's, solar system dynamics)  
K. Kyser (Queen's, isotopic chemistry)  
G. Southam (University of Western Ontario)(  
G. Shepard (York, planetary atmospheres)  
D. Weis (UBC, isotopic cosmochemistry)  
Y. Wu (CITA, planetary astrophysics)  
A. Yau (U Calgary, space physics)

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## C. RECENT/PAST YEARS ACTIVITIES IN CANADA RELATED TO PLANETARY SCIENCE

1. SSPS Meeting 2006 (Calgary)
  - 25 participants over 1.5 days all related to Planetary science
  - several talks given in this session good representation from extrasolar / disks/ Kuiper- Belt.
  - Agenda appended at end of report

Upcoming for the next Year:

Canadian Space Agency – Canadian Space Exploration Workshop 5 – June 2007  
Consider holding 2007 SSPS meeting at CSEW5?

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## NATIONAL PLANETARY SCIENCE STRUCTURES - UPDATE

1. JCSA meeting at CASCA.

JJ report on JCSA meeting on Sunday of future mission possibilities for space astronomy.

2. CSA – Given comments from CSA at the Exploratory Workshop in Planetary Science held at the Peter Wall Institute for Advanced Study in 2005, nothing from CSA will be purely science driven, rather all will be mission/project driven. New AO will be out this coming year which will be broad in scope and could include pure science.
3. NSERC
  - No new information on GSC-17 envelope funding initiative or new Planetary GSC
4. Next LRP – JJ reports NRC structure changing and it is unclear how supportive NRC will be for LRP2 or if CASCA will initiate.

**Action Item:** Need input from the CASCA board vis a vis their desire for input from the SSPS specifically and the broader planetary science community specifically to the next LRP

Canvas the advisory board for major thematic thrusts for a PS roadmap in Canada – this in response for the next LRP to contain – document to provide input for next LRP as stand alone PS contribution

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## E. PLANS FOR ACTIVITIES/MEETINGS IN 2006+ / FUTURE PS –RELATED MEETINGS IN CANADA

1. DPS in 2009 in Whistler
    - Brett has made successful bid to host DPS in 2009 in Whistler and been accepted by DPS committee
  2. Gopalan Srinivasan has made successful bid to host the 2010 Metsoc for Canada.
  3. Current plan is to repeat this PS workshop as held in Calgary at Kingston in 2007. As a possible alternative to involve more of the geology end of things to host something at CSEW5 – science talks at CSEW5.
  4. Conference entitled “The Pulse of the Earth and Planetary Evolution” having the theme “Field to Lab to Payload” will be held June 20-24, 2007 at Laurentian University in Sudbury. Penny King (UWO) and Paul Sylvester (Memorial) are co-convening this meeting.
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F. PLANETARY SCIENCE IN CANADA – WHERE DO WE GO FROM HERE?

- Canadian PS roadmap document to be generated as input for next LRP through CASCA
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Meeting adjourned at 1400

**Canadian Solar System and Planetary Studies Workshop 2006, Hyatt  
Calgary.**

Final Program

1:30-4:10 Wednesday May 31                      and then                      9:00-11:50 and 2:00-  
4:30

Thursday June 1

10-15 minute talks with LCD projector (only presentation medium) in  
Nielsen  
3 room of Calgary Hyatt

Wednesday Afternoon      Chair: Brett Gladman

1:30-1:40                      Introductory Discussion

1:40-2:00                      Doug McNeil                      Before the Hearth: Recent Developments in  
Terrestrial Planet  
Formation

[mcneil@astro.queensu.ca](mailto:mcneil@astro.queensu.ca)

2:00-2:20                      Yanqin Wu                      Circumstellar Debris Disks -- Theoretical  
Questions

[wu@astro.utoronto.ca](mailto:wu@astro.utoronto.ca)

2:20-2:40                      Ralph Pudritz                      Saving Planetary Systems - the Role of  
Dead  
Zones  
Soko Matsumura  
Ed Thommes

[pudritz@thyme.Physics.McMaster.CA](mailto:pudritz@thyme.Physics.McMaster.CA)

2:40-3:00                      Richard                      Isotope and Species Separation in Space  
Plasmas  
Marchand

[rmarchan@ualberta.ca](mailto:rmarchan@ualberta.ca)

3:00-3:30                      Coffee Break

3:30-3:50                      Paul Wiegert                      Capturing Phobos and Deimos

[pwiegert@uwo.ca](mailto:pwiegert@uwo.ca)

3:50-4:10                      Martin Connors                      Limits of Stability in Earth Co-orbital  
Motion of Asteroids

C. Veillet

R. G. Stacey

R. Brasser

P. Wiegert

S. Mikkola

K. A. Innanen

[martinc@athabascau.ca](mailto:martinc@athabascau.ca)

Wednesday Evening - Group Dinner

Thursday Morning            Chair: Peter Brown

9:00-9:20            Jason Nycz            The Peripheral Peak ring as an Indicator  
of  
Strength Contrasts in Near  
Surface Layering on Mars

[jnycz@aspect-energy.com](mailto:jnycz@aspect-energy.com)

9:20-9:40            Gordon Osinski        Impact Cratering on Earth and Mars  
[Gordon.Osinski@space.gc.ca](mailto:Gordon.Osinski@space.gc.ca)

9:40-10:00          Brett Gladman        Rogue planets in the Kuiper Belt  
[gladman@astro.ubc.ca](mailto:gladman@astro.ubc.ca)

10:00-10:30        Coffee Break

10:30-10:50        Ramon Brasser        Oort Cloud Formation in the Primordial  
Solar  
Environment  
[brasser\\_astro@yahoo.com](mailto:brasser_astro@yahoo.com)

10:50-11:10        Steve Bickerton      An Observational KBO Surface Density  
Limit  
from 40 Hz Photometry  
D.L. Welch  
JJ Kavelaars

[bick@physics.mcmaster.ca](mailto:bick@physics.mcmaster.ca)

11:10-11:30        Wes C. Fraser        The Luminosity Function of the Kuiper  
Belt  
from  $m(r)=23$  to 25.5.

JJ Kavelaars

J. MacWilliams      C. Pritchett        L. Allen      B. Gladman      M. Holman

J-M.

Petit

[wesley.fraser@nrc.ca](mailto:wesley.fraser@nrc.ca)

11:30-11:50        Lynne Allen            Buffy: An unusual Kuiper Belt object  
[lallen@phas.ubc.ca](mailto:lallen@phas.ubc.ca)

11:50-2 pm        Lunch

Thursday Afternoon        Chair: Martin Connors

2:00-2:20            Peter Brown            Impact of a 10m Near-Earth Object on  
September 4, 2004

[pbrown@uwo.ca](mailto:pbrown@uwo.ca)

2:20-2:40 Rob Cardinal TRAPAS: Optimizing Asteroid Detection in  
CCD  
Images  
[rcardina@ucalgary.ca](mailto:rcardina@ucalgary.ca)

2:40-3:00 JJ Kavelaars SCUBA2 and the Debris Disk Legacy Survey  
[jjk@hia-iha.nrc-cnrc.gc.ca](mailto:jjk@hia-iha.nrc-cnrc.gc.ca)

3:00-3:30 Coffee Break

3:30-5:30 SSPS Annual Meeting

Poster:

Ian M. Coulson Physical characteristics of the Martian Shergottite  
meteorites: porosity and density  
M. Beech measurements  
W. Nie  
[ian.coulson@uregina.ca](mailto:ian.coulson@uregina.ca)

Non-presenting participants:

Christian Veillet [veillet@cfht.hawaii.edu](mailto:veillet@cfht.hawaii.edu)  
Nadine Manset [manset@cfht.hawaii.edu](mailto:manset@cfht.hawaii.edu)  
Ellen Milley [epmlly@mta.ca](mailto:epmlly@mta.ca)  
L. Jones HIA  
A. Moldowan UWO  
G. Srinivasan [g.srinivasan@utoronto.ca](mailto:g.srinivasan@utoronto.ca)  
Don Hladiuk [hladiukd@telusplanet.net](mailto:hladiukd@telusplanet.net)