Business Meeting
Commission B5 Laboratory Astrophysics

Farid Salama

F. Salama, IAU GA 2018, Vienna
Agenda

• Mission
• Research Areas
• History
• Governing Body
  • Activities
  • Elections
  • Future
  • Q&As
B5 – Commission B5 Laboratory Astrophysics

Description

The purpose of the Laboratory Astrophysics Commission (B5) is to address the multidisciplinary needs and requirements of modern astronomy and planetary science. As a result, the Commission encompasses the four fundamental research areas that generate astrophysical data needs: atomic and molecular astrophysics, physics and chemistry of solid materials and condensed matter (dust and ices), plasma astrophysics, and nuclear and particle astrophysics. The Commission embraces interdisciplinary studies crossing physical, chemical, biological, geological sciences of relevance to astronomy, including experiment, theory, and modeling, from the nuclear and atomic/molecular level to application on astronomical scales.

In summary, the Laboratory Astrophysics Commission is a strongly cross-disciplinary commission with the aim to assist all IAU members in providing the data needed to interpret and understand astronomical observations and to promote Laboratory Astrophysics.

Links:
- Commission B5 Annual Report (2016)

Meetings:
- 2018 GA Commission B5 Programme
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Purpose of Commission B5: address the multidisciplinary needs and requirements of modern astronomy and planetary science.
B5 – Commission B5 Laboratory Astrophysics
https://www.iau.org/science/scientific_bodies/commissions/B5/

Description – Statement of Mission

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- Commission B5 is a strongly cross-disciplinary commission with the aim to assist IAU members in providing the data needed to interpret and understand astronomical observations and to promote Laboratory Astrophysics.

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History/Chronology

• The Commission came into being at the IAU 29th General Assembly Meeting in Hawaii in 2015 as a natural successor of Commission 14 (Atomic and Molecular Data) and in recognition of the ever expanding multidisciplinary needs of the astronomical community.
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• Founding Members: Farid Salama, Helen Fraser, Paul Barklem, Thomas Henning, Gianfranco Vidali
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Governing Body

• First OC (2015-2018): Founding Members + Elected Members
  (Total number of seats: 7)

  Farid Salama (President)
  Helen J. Fraser (Vice-President)
  Gianfranco Vidali (Secretary)
  Paul Barklem (Member-at-Large)
  Thomas Henning (Member-at-Large)
  Harold Linnartz (Member-at-Large)
  Feilu WANG (Member-at-Large)
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Activities

• Advise IAU on Laboratory Astrophysics
• Promote Laboratory Astrophysics
• Organize Meetings (2018 GA, 2019 non-GA Symposium)
• Establish Working Groups to undertake well-defined tasks for limited time periods on behalf of the Commission as a whole
• Run Elections
• Yearly evaluation of IAU Symposium proposals
• Report to IAU:
  Annual and Triennial Reports of Commission activities
  Annual and Triennial Reports of Working Groups
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Working Groups

• CB5 has two Working Groups

  ➢ High-Accuracy Stellar Spectroscopy WG
    P. Barklem (Chair)
    Objective: promote the interaction between theoretical atomic physics, laboratory spectroscopy, and astrophysical observations to generate the high-accuracy atomic and molecular data required for accurate stellar spectroscopy.

  ➢ Spectroscopic and Radiative Data for Molecules
    S. Federman (Chair)
    Objective: provide updated reports on the latest experimental and theoretical results in rotational, vibrational, and electronic spectroscopy for radiative processes that provide essential information on molecular abundances and excitation in astronomical environments.

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Reports of Activities

• Annual and Triennial Reports of Commission activities
• Annual and Triennial Reports of Working Groups
• All reports are published in IAU Transactions (Transactions IAU, Volume XXXA, Reports on Astronomy 2015-2018, P. Benvenuti, ed.)


Commission B5 WG Triennial Report (2015-2018) - High-Accuracy Stellar Spectroscopy:

Commission B5 WG Spectroscopic and Radiative Data for Molecules

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Elections

• New OC (2018-2021): Second-Term Members + Elected Members

  Commission B5 Laboratory Astrophysics (Total number of seats: 7)

• President: Helen J. Fraser (UK)
• VP (elected): Paul S. Barklem (Sweden)
• At-large members (elected): Marie-Lise Dubernet (France), Elisabetta Micelotta (Finland)
• Second-term members: Thomas Henning (Germany), Gianfranco Vidali (United States), Feilu Wang (China-Nanjing)
• Advisor (Past President): Farid Salama (United States)

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IAU S350
Laboratory Astrophysics: From Observations to Interpretation

Jesus College, Cambridge
April 14th – 19th 2019

For more information and to pre-register interest email
IAUS350-labastro2019@open.ac.uk

SOC: Farid Salama (Chair), USA, Paul Barklem, Sweden, Helen Fraser, UK, Thomas Henning, Germany, Christine Joblin, France, Sun Kwok, China, Harold Linnartz, Netherlands, Lyudmila Mashonkina, Russia, Tom Millar, UK, Osama Shalabiea, Egypt, Gianfranco Vidali, USA, Feilu Wang, China, Giulio Del- Zanna, UK
Monday, August 27, 2018:

Session 4b parallel session 10:30 – 12:00

Reports Commission B5 – Laboratory Astrophysics: from Observations to Interpretation (Part 1)

10:30 – 11:00: Commission B5 Business Meeting – Farid Salama
CB5 Triennial report and CB5 WG reports
OC Elections; Plans for the future, 2019 IAUS 350: Laboratory Astrophysics non-GA Symposium; Q&As

11:00 – 11:20: Progress report of the Working Group Spectroscopic and Radiative Data for Molecules – Steve Federman

11:20 – 11:40: The ESO Diffuse Interstellar Band Large Exploration Survey: First Results – Jan Cami

11:40 – 12:00: The Virtual Atomic and Molecular Data Centre (VAMDC)
A Resource for Atomic and Molecular Data – Marie-Lise Dubernet

Session 5b parallel session 13:30 – 15:00

Reports Commission B5 – Laboratory Astrophysics: from Observations to Interpretation (Part 2)


13:50 – 14:10: Searching for the sources of meteorites in the asteroid belt – Peter Jenniskens

14:10 – 14:30: Laboratory Astrophysics in the era of JWST – Stefanie Milam

14:30 – 14:50: Optical Properties of Organic Analogs to Cosmic Dust – Lisseth Gavilan

14:50 – 15:00: Open Discussion: Summary and Conclusions – All
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