



## Laboratory Astrophysics Division of the American Astronomical Society (AAS/LAD)

<http://lad.aas.org/>

Farid Salama

*Space Science & Astrobiology Division*

*NASA-Ames Research Center, Moffett Field, California 94035-1000, USA*

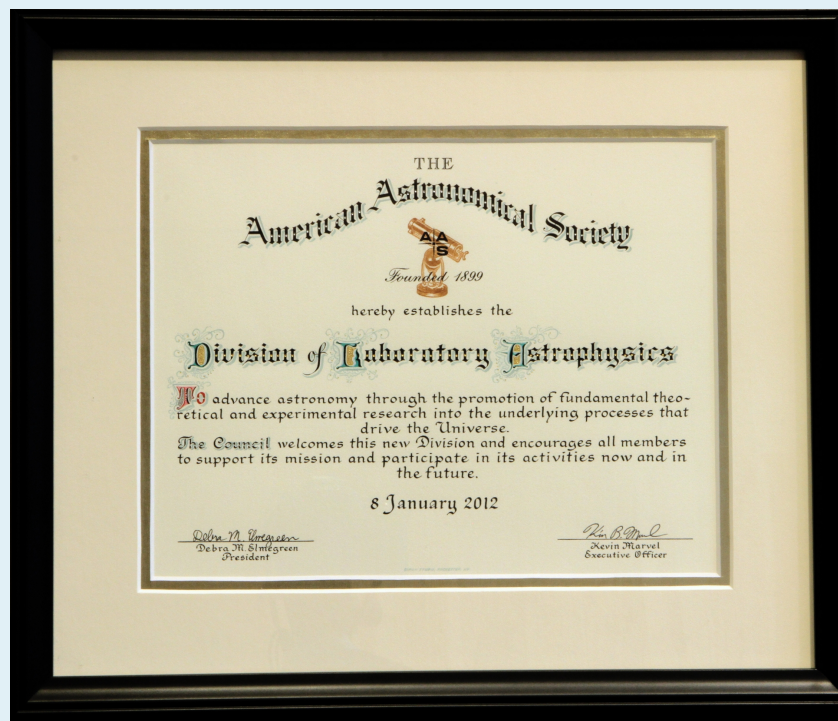
- **About LAD**
- **Milestones**
- **Members**
- **Operation**
- **Activities**
- **Highlights**



<http://lad.aas.org/>

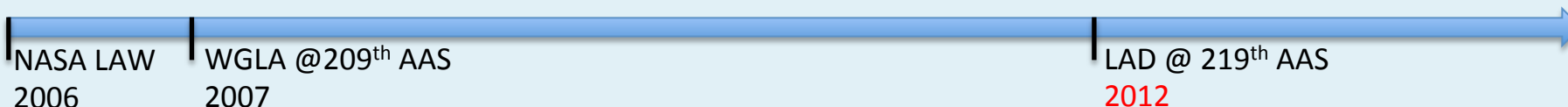
## About LAD

The object of the Laboratory Astrophysics Division is to advance our understanding of the Universe through the promotion of fundamental theoretical and experimental research into the underlying processes that drive the Cosmos.





## Brief History & Major Milestones



**The first new AAS Division in more than 30 years**, the LAD traces its history back to the recommendation from the scientific community via the White Paper from the 2006 NASA-sponsored Laboratory Astrophysics Workshop. This recommendation was endorsed by the Astronomy and Astrophysics Advisory Committee (**AAAC**), which advises the National Science Foundation (**NSF**), the National Aeronautics and Space Administration (**NASA**), and the U.S. Department of Energy (**DOE**) on selected issues within the fields of astronomy and astrophysics that are of mutual interest and concern to the agencies.

In **January 2007**, at the 209th AAS meeting, the AAS Council set up a Steering Committee to formulate Bylaws for a Working Group on Laboratory Astrophysics (**WGLA**). The WGLA was formally established with a five year mandate by the AAS Council in May 2007, at the 210th AAS meeting.

From 2008 through 2012, the WGLA annually sponsored Meetings-in-a-Meeting at the AAS Summer Meetings. In May 2011, at the 218th AAS meeting, the AAS Council voted to convert the WGLA, at the end of its mandate, into a Division of the AAS and requested draft Bylaws from the Steering Committee.

In **January 2012**, at the 219th AAS Meeting, the AAS Council formally approved the Bylaws and the creation of the LAD. The inaugural gathering of the LAD was held at the 220th AAS meeting in June 2012.



<http://lad.aas.org/>

**Members:** Division Count: **134** (21 October 2014 01:42 PM EDT)

(> 500 subscribers to LAD listserv ([LADList@aas.org](mailto:LADList@aas.org)))

AAS members: Full or Associate; Junior Member; Emeritus Member

**Non-AAS members:** Individuals who are not members of the American Astronomical Society are eligible to join the LAD as an affiliate member if they belong to one of the Professional Societies recognized by the LAD.

Affiliate Member; Junior Affiliate Member

**LAD General Fund:** The General Fund is used by the LAD Leadership to help meet the Division Objective which is to advance our understanding of the Universe through the promotion of fundamental theoretical and experimental research into the underlying processes that drive the Cosmos.

**Laboratory Astrophysics Prize Fund:** The Laboratory Astrophysics Prize Fund will help to endow the prize to be awarded by the LAD, normally, on an annual basis for significant contribution to Laboratory Astrophysics.



<http://lad.aas.org/>

**Operating Mode:** Bylaws & Committee:

## **Bylaws of the Laboratory Astrophysics Division (LAD)**

- I. Name
- II. Object
- III. Enabling Authority
- IV. Membership
- V. Officers and Committee of the Division
- VI. Election and Tenure of Officers and Committee Members-at-Large
- VII. Meetings of the Division
- VIII. Appointed Special Committees
- IX. Programs
- X. Amendment of Bylaws
- XI. Award of the Laboratory Astrophysics Prize



# LABORATORY ASTROPHYSICS DIVISION (LAD)



**Operating Mode:** Bylaws + Committee:

<http://lad.aas.org/>

**Committee = Officers + Members at large**

**Officers:**

Chair: Steven Federman (University of Toledo): 2013 - 2015

Vice Chair: Farid Salama (NASA Ames Research Center): 2013 - 2015

Treasurer: Paul Drake (University of Michigan): 2013 - 2016

Secretary: Daniel Wolf Savin (Columbia University): 2013 – 2016

**Members-at-Large:**

John Black (Chalmers University of Technology): 2013 - 2016

Nancy Janet Chanover (New Mexico State University): 2013 - 2016

Gianfranco Vidali (Syracuse University): 2013 - 2016

Karin Oberg (Harvard University): 2014 - 2017

Edward Brown (Michigan State University): 2014 – 2017

**Election Nominating Committee 2013**

Nancy Brickhouse (CfA), Chair; Eric Herbst (U Virginia); Bruce Remington (LLNL)

**Election Nominating Committee 2014**

Wick Haxton (UC Berkeley); Randall Smith (SAO), Chair; Phillip Stancil (UGA)

**Lab Astro Prize Committee 2014**

Eric Blackman (U Rochester); Ara Chutjian (JPL); Geoff Clayton (LSU); Steve Federman (U Toledo)



<http://lad.aas.org/>

## Activities:

- **Meetings**  
Annual Science & Business meetings;  
Joint science events
- **Reports & White Papers**  
Decadal surveys (NAS, NRC, SSB, NASA, etc...)
- **Communication:**  
LAD Listserv  
Newsletters: Biannual  
Annual Reports: Annual  
Business Meetings: Annual



<http://lad.aas.org/>

**Meetings:** Annual Science & Business meetings + Joint events

LAD has been holding:

- Annual “Bridging Laboratory and Astrophysics” meetings since 2008
- Joint meetings/sessions with other AAS Divisions (HEAD, SPD, DPS)
- Joint meeting with IAU (e.g., [joint LAD/Com14 at IAU GA 2015](#))
- Co-sponsoring (Faraday Discussion 168: Astrochemistry of Gas, Dust and ices, Leiden 2014)

Typical LAD Meeting:

- Held in parallel with AAS Summer Meeting (May/June)
- Seven 90’ sessions (atoms, molecules, dust & ice, plasma, planetary, nuclear, and particle)
- Two 30’ invited + two 15’ contributed talks + poster sessions
- Includes also a Business Session devoted exclusively to the reports of Officers and committees, and to the transaction of business affairs (report to- and feedback from- the community)

The Program Committee is responsible for organizing the scientific programs of the Division.

\*Upcoming Meeting: **Joint IAU/AAS/LAD Focus Meeting:**

Focus Meeting 12: Bridging Laboratory Astrophysics and Astronomy | XXIX IAU General Assembly (DEV)

<http://astronomy2015.org/node/70>



[Home](#)[Science Program](#)[Registration](#)[Abstract Submission](#)[Travel and Lodging](#)[Exhibit Opportunities](#)[Sponsorship Opportunities](#)[Applying for a US VISA](#)[Events & Excursions](#)[Splinter Meetings](#)[About the IAU XXIX GA](#)[Contact Us](#)

**Countdown to IAU  
XXIX GA  
316 days 15 hours  
12 minutes 36  
seconds**

## FM 12: BRIDGING LABORATORY ASTROPHYSICS AND ASTRONOMY

**Start Date:**

Monday, August 3, 2015

**End Date:**

Wednesday, August 5, 2015

**Contact:**

**Farid Salama**

**Coordinating Division(s):**

**Division B Facilities, Technologies and Data Science**

**Co-Chairs of SOC:**

- Farid Salama (NASA-Ames Research Center)
- Lyudmila Mashonkina (Institute of Astronomy RA)
- Steven Federman (University of Toledo)

**Topics:**

- Atoms in interstellar matter, stellar spectra, stellar and planetary atmospheres, interplanetary plasma and heliosphere, meteors, meteorites and interplanetary dust, space and high-energy astrophysics.
- Molecules in interstellar matter, stellar spectra, stellar and planetary atmospheres, meteors, meteorites and interplanetary dust, astrochemistry and bioastronomy.
- Dust and ices in interstellar matter, planetary surfaces, meteors, meteorites and interplanetary dust, astrochemistry and bioastronomy.
- Plasmas in interstellar matter, stellar spectra, stellar atmospheres, interplanetary plasma and heliosphere, meteors, space and high-energy astrophysics, meteorites and interplanetary dust.
- Nuclei and particles in stellar spectra, stellar atmospheres, space and high-energy astrophysics.

**Rationale:**

Astronomy is primarily an observational science detecting photons generated by atomic, molecular, chemical, and condensed matter processes. Our understanding of the universe also relies on knowledge of the evolution of matter (nuclear and particle physics) and of the dynamical processes shaping it (plasma physics). Planetary science, involving in-situ measurements of solar system bodies, requires knowledge from physics, chemistry, and geology. Exploring the question of life elsewhere in the Universe draws on all the above as well as biology. Hence, our quest to understand the cosmos rests firmly on theoretical

<http://astronomy2015.org/node/70>

[REGISTER](#)[BOOK YOUR HOTEL](#)[SUBMIT YOUR ABSTRACT](#)

### DEADLINES

December 1, 2014

**Early Registration**

March 18, 2015

**Abstract Submission Due -  
8:00pm ET/11:59pm UTC**

April 1, 2015

**Grant Application Due**

May 28, 2015

**Exhibitor Reservations**

May 28, 2015

**Regular Registration**

June 15, 2015

**Public Splinter Meeting Proposal**

August 1, 2015

**Late Registration**

### SPONSORS



## **FM 12: Bridging Laboratory Astrophysics and Astronomy**

Start Date: Monday, August 3, 2015

End Date: Wednesday, August 5, 2015

### **[MEMBERS OF SOC]**

Farid Salama NASA-Ames Research Center USA, Chair

Lyudmila Mashonkina Institute of Astronomy RAS Russia, Co-Chair

Steven Federman University of Toledo USA, Co-Chair

Martin Asplund Australian National University Australia

Beatriz Barbuy University of Sao Paulo Brazil

Paul Drake University of Michigan USA

Karlheinz Langanke GSI Germany

Harold Linnartz Leiden Observatory The Netherlands

Xiaowei Liu Kavli Institute P.R. China

Tom Millar Queen's Univ. Belfast UK

Evelyne Roueff Observatoire de Paris France

Daniel Savin Columbia University USA

# Annual Metrics

## Membership (as of 03 June 2014)

- 121 members in all categories.
- Growth of >40 since last year.
- 111 voting members.
- 40% voted this year (40% last)  
(15-20% typical for AAS elections).

## LAD listserv

- 504 subscribers.
- Growth of >50 since last year.

## Funds

- General funds -
- Prize funds -

# Current meeting

## Punching above our weight

- 121 LAD members.
- 7100 AAS members.
- LAD represents only 1.7% of AAS.
- 65 attendees for 2<sup>nd</sup> LAD meeting peak session.
- 1183 attendees at AAS 224<sup>th</sup>.
- LAD drew 5.5% of the meeting attendees.

# Current meeting

## June 2014: 2<sup>nd</sup> LAD meeting at 224<sup>th</sup> AAS meeting

- Plenary lecture (Sara Seager).
- 6 sessions (atoms, molecules, dust & ice, plasma, planetary, and nuclear/particle).
- Two 30 min invited & two 15 min contributed.
- Attendance ~35-65 per session.
- Third business meeting.
- 2 joint LAD, SPD, and APS TGPAP sessions.
- Format: Six 15 min talks.
- Attendance ~30-75.

# **2015 Laboratory Astrophysics Prize**

**For significant contribution to lab astro.**

**Cash award, citation, & invited talk at LAD meeting.**

**Nomination package (due Fri 29 Aug 2014)**

- 1-page narrative description.
- CV.
- Publication list.
- Other helpful material.
- 2 additional supporting letters of reference.
- No self-nomination.
- Send to [ladsec@aas.org](mailto:ladsec@aas.org) by deadline.

**Recipient announced Fall 2014; awarded Jan 2015.**

**Nominees not selected considered for next 2 years.**

