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- **From:** David Soderblom
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## IAU Division G, Stars and Stellar Physics, Quarterly Newsletter

It has been some time since I have sent one of these, due to a lack of news, but there are some matters to catch up on.

### IAU symposia and focus meetings in 2021

A strong set of proposals for symposia and Focus Meetings for 2021 was received in December. The division presidents and steering committees have reviewed those proposals, and a final program for 2021, especially the General Assembly in Busan, South Korea, was made by the IAU's Executive Committee:

Symposia: <https://iau.org/science/meetings/future/symposia/>

Focus Meetings: <https://iau.org/science/meetings/future/focus-meetings/>

There are many of interest to members of Division G, so I hope to see you there. Also note that there will be a Focus Meeting about how we hold symposia, especially relevant in these lock-down times!

### Passings

I report with sadness the passing of our Division G colleagues:

Andrew P. O'Dell, USA: <https://www.iau.org/administration/membership/individual/5631/>

George S. Mumford, USA: <https://www.iau.org/administration/membership/individual/211>

Denis John Sullivan, New Zealand:

<https://www.iau.org/administration/membership/individual/5392/>

Richard Anthony James, UK:

<https://www.iau.org/administration/membership/individual/3202/>

### **Special event: Division G's PhD prize winner to talk to us!**

I have set up an on-line session for anyone interested to hear about the work of Simon Blouin, Division G's most recent PhD prize winner. His work is on white dwarfs, and is titled "Cool white dwarf atmospheres: A transparent window into the past". Here is an abstract:

**Abstract:** White dwarfs, those stellar embers depleted of nuclear fuel, are formidable tools to study a wide range of questions in both physics and astronomy. They are used to measure the ages of stellar populations, infer the bulk composition of planetesimals belonging to old exoplanetary systems and test theories on the behavior of matter under extreme conditions. All those applications depend on the accuracy of the model atmospheres used to match the observed spectra of white dwarfs and determine their fundamental properties. Atmosphere models struggle to reproduce the observed spectra of the coolest, oldest white dwarfs, due to the fluid-like density of their transparent atmospheres. This implies that the parameters (age, composition, etc.) determined for those stars may be incorrect. In this talk, I will show how I used theoretical tools originally developed for applications in condensed matter physics to

solve this problem. I will also discuss a few applications of those improved model atmospheres.

The talk will be at 12:00 Mountain Daylight Time on September 3, Thursday. That is 18:00 UT. I will record the talk and provide a link later so those of you in inconvenient time zones can hear him.

Here is the link to connect:

**David Soderblom invites you to join this Webex meeting.**

Meeting number (access code): 199 345 5007

Meeting password: v94mCmtGDJ3

Tuesday, August 11, 2020

2:00 pm | Eastern Daylight Time (New York, GMT-04:00) | 1 hr

[Join meeting](#)

**Another special event: Talk with your division president!**

I will be available online both before and after Dr. Blouin's talk on Sep. 3, starting at 17:00 UT and going until 20:00 UT. I will use the same WebEx link as above. I will answer questions as best I can and welcome your thoughts.

**Other news**

- Division G Working Group G2 is holding a Virtual Meeting Oct 14 - 16 2020 to discuss the massive star side of the HST UV ULLYSES Project:  
[https://docs.google.com/forms/d/e/1FAIpQLSdm\\_gTU\\_F\\_Poylp0o1Pk588z8Fs1VuxtwrMng0mBLrNu0wCCw/viewform](https://docs.google.com/forms/d/e/1FAIpQLSdm_gTU_F_Poylp0o1Pk588z8Fs1VuxtwrMng0mBLrNu0wCCw/viewform)
- **Special meeting: Astronomy and Covid-19**

NARIT, Thailand and the IAU South East Asian Regional Office will be hosting a webinar on "A dialogue on the role of astronomy in the COVID era" on August 25, 2020, 07:00-09:30 UTC. OAD Fellow Dr. Marie Korsaga will be giving a keynote on her work documenting the [actions of the astronomy community](#) (& other non-medical sciences) in the fight against COVID-19.

- **Associate members in the IAU**

The IAU includes a category of Associate Member which has not been used extensively. Associates can be connected to a division, commission, or working group. The IAU's words are:

**ASSOCIATES**: The IAU status of "Associate" is offered by invitation exclusively to individuals who are not IAU members, but are actively involved in the work of the IAU, as members of a Working Group, a Commission, or a Division. The status is temporary and must be reconfirmed at the time of the General Assemblies. Associates are appointed by the Working Group, Commission, or Division with which they are

working, and are listed on the IAU website as "Associates". The list of Associates is available (<https://www.iau.org/administration/membership/associate/>) and is maintained by the Secretaries of the relevant Divisions in coordination with the IAU Secretariat.

- **A virtual mentoring program for women studying Physics: The Supernova Foundation**

From the OAD: Many women, particularly women in developing countries, do not usually have access to women role models to inspire and guide them. It is extremely challenging, in an environment dominated by men, for women of many cultures to find mentors they can easily talk to and get advice from. We aim to remedy this by connecting women students in Physics to established women researchers around the world to receive mentoring.

The Supernova Foundation aims to:

- Provide personal mentorship for women students (with a focus on students from developing countries) as they transition to postgraduate studies by established women physicists.
- Provide guidance on various topics including: career choices, application process, CVs, work-life balance and gender-specific harassment.
- Connect and provide a support network for women in Physics across the globe at different stages of their career.
- Host and record webinars with useful advice and interesting discussion.

If you are an ambitious woman student (undergraduate or postgraduate) in Physics who would like to achieve her full potential with the help of internationally established mentors, please [apply as a mentee!](#)

If you are an established woman Physicist (already holding a PhD and working in a Physics-related field) who would like to share her knowledge and experience with students from all around the world and connect to other established women scientists, [please apply as a mentor!](#)

You can also share through social media:

Twitter: [https://twitter.com/SF\\_mentoring](https://twitter.com/SF_mentoring)

Facebook: <https://www.facebook.com/SFmentoring/>

- **Thinking ahead to 2021 and 2022**

I urge all of you to think about the IAU and Division G over the next two years. Proposals for 2022 symposia will be due near the end of this year, and this is a good time to start a proto-proposal and to line up potential SOC members if you have an idea. Last minute proposals really don't work.

As for 2021, we will, of course, have two Division Days at the General Assembly (August, in Busan South Korea). What can we highlight during that time. Also, new division and commission officers get elected in 2021. Please consider volunteering, and contact me if you

are willing. Both the IAU and this division need broader representation, especially geographically, and I thank those of you who have already contacted me.

David Soderblom  
U.S. National Committee for the IAU  
President, Division G, Stars and Stellar Physics  
Chair, IAU Membership Committee  
Space Telescope Science Institute, Baltimore MD USA  
[drs@stsci.edu](mailto:drs@stsci.edu)