

The (Variable) Stars Belong to Everyone

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Received May 31, 2016

The authorship of this issue reminds us that, although the AAVSO is “American,” its reach and impact are international. Our members and observers come from around the world.

International Science: There are thousands of VSOers around the world. We need variable star observations made with various instruments, from both north and south, and from all longitudes so there is coverage even when America is in daylight. Friedrich Argelander (1799–1875), the “father of variable star astronomy,” admonished observers to publish their observations, and not to just file them in a drawer. But if they were published in a thousand places, with a thousand different methodologies and comparison stars, that would not be very useful. There are great advantages for researchers like me to be able to go to a single source—the AAVSO *International Database*—for systematic, sustained data.

The results of variable star research are published in few dozen journals around the world. *JAAVSO* occupies a special niche. We are a refereed journal which invites papers in English from any country, to serve our readership of professional astronomers, amateurs, students, and other readers who are not necessarily at the level of *The Astrophysical Journal*.

International Organization: Professional astronomy is organized internationally by the International Astronomical Union (IAU: iau.org), whose mission is to promote and safeguard astronomy through international cooperation. IAU Division G, Stars and Stellar Physics, includes several “commissions” or interest groups which are relevant to AAVSO, including Binary and Multiple Star Systems, Massive Stars, Stellar Evolution, and Pulsating Stars. I know, from my time as a commission president, that the AAVSO is highly respected internationally. It can provide a strong voice for all the skilled amateurs who continue to play a significant role in variable star astronomy. AAVSO Council member Joyce Guzik is currently a member of the executive committee of Commission G4: Pulsating Stars.

In addition, there are several dozen VSOing organizations, with objectives similar to those of AAVSO, in countries around the world; 36 of them are listed at <https://www.aavso.org/observer-affiliations-table>. AAVSO has consistently endeavored to maintain effective, respectful partnerships with these groups. The AAVSO’s first international meeting was held in Brussels in 1990. Its proceedings (Percy *et al.* 1992) reflects our world-wide reach. An “international union of amateur astronomers” has existed at times, but not currently.

International Astronomy Education: At the graduate level, astronomy education is quite international; at Toronto, our grad students and postdocs and faculty come from all over the world. At the undergraduate level, astronomy education may

seem much more national or local, but there are still reasons to have an international perspective. At my university, about half of undergraduate students were born elsewhere. We are also interested in the nature and strengths and weaknesses of other education systems. This is especially true at the school level. Why do countries such as Finland outperform us in international standardized science and math tests? Often, the answers can help us to deal with weaknesses in our own system—the education of immigrant students, Aboriginal students, and other marginalized groups. Can it also help us with a fundamental problem: astronomy is a compulsory part of the elementary and secondary curriculum, but few teachers have any background in astronomy, or astronomy teaching. Jay Pasachoff and I chaired the first international conference on the teaching of astronomy (Pasachoff and Percy 1990). It was inspiring to meet and learn from our “kindred spirits” from around the world.

International Astronomy Outreach: International Year of Astronomy 2009 was a roaring success. To my mind, it was more effective than the international years of physics (2005) and chemistry (2011). It was celebrated in 148 countries around the world. Since this is twice the number of countries which carry out astronomical research, and adhere to the IAU, it follows that, in at least half of countries, IYA was driven, at the grass-roots level, by amateurs and educators. IYA included international, national, and local projects, and certainly benefitted from being a world-wide event. AAVSO also supported and participated in International Year of Light (2015) as an “encore.”

The AAVSO has just joined *Astronomers Without Borders* (astronomerswithoutborders.org) to support projects such as Global Astronomy Month. AWB is a non-profit organization dedicated to “bringing the world together to share our passion for astronomy and the wonders of the Universe.” In their words: “In the process of looking outward together, we learn about each other and create lasting bonds, regardless of country or culture.” It’s one world, one sky; the stars belong to everyone.

International Astronomy Development: The stars may belong to everyone, but there are few countries as well-equipped for studying them as ours. But why develop astronomy, or use astronomy as a tool for development in third-world countries which have more pressing needs? One reason is because astronomy is engaging and deeply rooted in culture, and can attract young people to science and technology. They can then pursue more “practical” careers, such as engineering and health care, while retaining astronomy as an interest or hobby.

One of the IAU’s highest priorities is astronomical development, which is coordinated through its Office of Astronomy for Development (www.astro4dev.org). But

individual professional or amateur astronomers can contribute, as Canadian amateur Dave Chapman (2016) has done during five trips to Cuba.

So please take a few minutes to reflect on your place in the international astronomical community, and how you can contribute, and how you can benefit.

References

Chapman, D. M. F. 2016, *J. Roy. Astron. Soc. Canada*, **110**, 74.

Pasachoff, J. M., and Percy, J. R. 1990, *The Teaching of Astronomy*, Cambridge University Press, Cambridge.

Percy, J. R., Mattei, J. A., and Sterken, C. 1992, *Variable Star Research: An International Perspective*, Cambridge University Press: Cambridge (a few copies are available on Amazon).