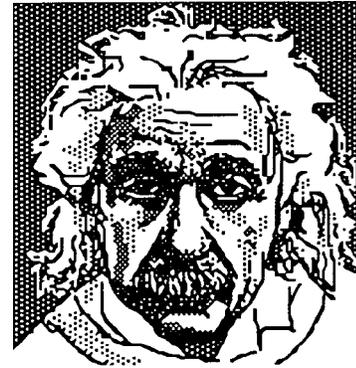


The Illinois Physics Teacher



**Fall 2018 Meeting of ISAAPT
October 26 – 27, 2018
Illinois State University
Normal, IL**

The Fall meeting of ISAAPT, themed “**Physics and Astronomy: Making Meaning from Data**”, will be held at Illinois State University in Normal, IL.

Invited presentations are –

1. “**Gravitational waves and light? The birth of multi-messenger astronomy and the detection of the fastest bursts in the Universe**” by Dr. Jeffrey Cooke.
2. “**Constructing Gravity and the Standard Model** at 5:15 pm” by Dr. Neil Christensen.

There will be two workshops –

W1. “Laboratory Techniques Workshop” will be given by Carl Wenning on Friday between 10:30 am – 12:00 noon.

Carl Wenning, co-author of the three volume work Teaching High School Physics, will introduce participants to his popular Student Lab Handbook. This workshop will include a thought experiment during which participants will first learn about and then practice dimensional analysis, model construction, data collection and analysis, extraction of constants (e.g, 2π), and use of data to support or deny hypothetical constructs using chi-square

analysis. All activities are well documented and various sections of the Student Lab Handbook will be distributed and described. Participants should bring a scientific calculator. The Handbook, which includes three major themes – graphical analysis, mathematical methods, and general laboratory procedures – is freely available from <https://sites.google.com/site/teachinghighschoolphysics/>.

W2. “IOLab – a multi-sensor device for K1-College” will be given by Morten Lundsgaard on Saturday afternoon.

The IOLab is a wireless data acquisition system of similar size and weight as a graphing calculator, and thus highly portable. It contains more than twenty sensors or inputs, including a 3D accelerometer, a 3D magnetometer, a 3D gyroscope, wheels which record position, velocity, and acceleration, a force probe, and both analog and digital inputs. Data can be analyzed in the IOLab software itself, or can be exported to a comma separated value file for later analysis.

In the workshop, the participants will first complete some the open-ended labs that we are currently introducing in the introductory physics courses at the University of Illinois at Urbana-Champaign. Next, participants can explore the many features of the IOLab at various stations including a two-wire ECG-measurement! Participants will get access to an online course that contains prelab and lab ideas for both high school and college and be introduced to how students can share their

measurements with each other and with their teacher.

To make the IOlab experience more authentic, participants should bring their own computer, pc or mac, to the workshop.

For more information on the IOlab, see <http://www.iolab.science>.

Please consider attending this meeting to learn more about physics and discover new tools and techniques for teaching physics. Share your experiences – [contribute presentations](#) and Take Fives; and meet old and new friends.

Registration information and deadlines –

- [Registration is open](#). The registration fee for faculty is \$50. After October 19, the registration fee for faculty will be increased by \$5.
- Registration is free for students, guests, and invited guests.
- The deadline for banquet reservations is October 19. Banquet dinner cost is \$21.
- Box lunch is available on Saturday, October 27 for \$10.

For more up-to-date information please visit the [meeting website](#).

Message from the President

Friends in the ISAAPT - it's October, the leaves are starting to change, and it's time to look forward to another fantastic meeting if the ISAAPT. The theme for this fall's meeting - "**Physics and Astronomy - Making Meaning from Data**" is both timely and exciting. On the one hand, many of the big questions in physics today come to us from the areas of astronomy/astrophysics: the nature of dark matter and dark energy, what we will learn from gravity waves, etc., and on the other hand astronomy is a topic that's fun for us lucky enough to teach it and engaging for our students. Ken Wester and his colleagues at Illinois State University have lined up an impressive group of invited speakers, and I anticipate the contributed presentations and

"Take Five's" will be as varied, interesting, and afford useful take-home ideas as always. So gear to make the October 26-27 trip to Bloomington/Normal. The on-line registration is now open at isaapt.org. I hope to see many of you there! Chuck.

-Chuck Schulz, President, ISAAPT.

Future ISAAPT Meetings

- Fall 2018: Oct 26 – 27, Illinois State University, Normal, IL.
- Spring 2019: College of DuPage, Glen Ellyn, IL.
- Fall 2019: Joliet Junior College (Joint meeting with the Chicago Section).
- Spring 2020: University of Illinois Urbana-Champaign.

Chicago section meetings

- Fall 2018: Nov 3, Harper College, Palatine, IL.

More information:

<https://sites.google.com/site/chicagoaapt/>

Future national AAPT meetings

- 2019 Winter Meeting, January 12-15 (Houston, Texas)
- 2019 Summer Meeting, July 20-24 (Provo, Utah)
- 2020 Winter Meeting, January 18-21 (Orlando, Florida)

More information:

<http://www.aapt.org/Conferences/meetings.cfm>

APS Prairie section meeting

- Fall 2018 – to be announced

More information:

<http://www.aps.org/units/psaps/index.cfm>

AAPT NEWS eNNOUNCER

<http://www.aapt.org/aboutaapt/ennouncer/index.cfm>

ISAAPT membership listserv

To subscribe, see the instructions on this [webpage](#).

Connect with ISAAPT

ISAAPT is now on the social media websites!
Please consider joining and/or following us on:
Facebook group: search “Illinois Section of the American Association of Physics Teachers”
Google+ page: search “ISAAPT”
Twitter feed: search
“ISAAPT@IllinoisSecAAPT”

The contact for these social media sites is Marianna Ruggerio, mrugger2@gmail.com.

ISAAPT Guidebook Program

<https://sites.google.com/site/isaaptsite/brochures/guidebook-program>

Outstanding High School Physics Teacher Award

2017-2018 Illinois Outstanding High School Physics Teacher Award will be given to Kristi Brown of Springfield High School. Congratulations! This award will be presented during the Friday evening banquet at the fall meeting at Illinois State University. For a list of past awardees visit the ISAAPT [website](#).

The award for Outstanding High School Physics Teacher is presented at our Fall meetings. Fellow teachers and school administrators who are aware of exceptional performance and enthusiastic student response are encouraged to fill out the online nomination Form on the [ISAAPT website](#). Those who are nominated were notified by email from Zak Knott, and asked to fill out the online [Candidate Information Form](#). Previous nominations will be maintained for three years for consideration for future awards.

Call for Nominations for the 2018 Distinguished Service Citation

The distinguished service citation recognizes outstanding contributions to the field of physics

teaching in the state of Illinois. Special recognition is given in the areas of:

- leadership of colleagues and students through physics teaching
- professional contributions to section activities through contributed papers, workshop presentation, committee service, or elective office
- distinguished service at the teacher's home institution.

A list of [past awardees](#) can be found in the ISAAPT website.

Each year, the ISAAPT Executive Council solicits nominations for the Distinguished Service Citation. We invite and encourage you to nominate a fellow colleague for the 2018 Distinguished Service Citation to be presented at the Spring ISAAPT meeting. **Please send your nomination by December 1, 2018** to Andrew Morrison, amorriso@jjc.edu. The [guidelines and procedures](#) for the citation can be found in our [website](#).

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