

Spring 2014 Meeting of the Southeast PA Section of the American Association of Physics Teachers

Hosted by the Department of Physics at Villanova University

Friday evening, March 21, 2014

5:00-6:00	Registration desk opens	– Mendel 247
6:00-7:15	Dinner + Registration	– Mendel 247
7:15-7:30	Welcoming Remarks	– Mendel 115

Dr. Jeremy P. Carlo, *Villanova University*

Dr. Joseph Orkwiszewski, *Associate Dean, Villanova University*
College of Liberal Arts and Sciences

7:30-9:00	Invited Evening Speaker	– Mendel 115
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Dr. Edward Guinan, *Villanova University*

***To Boldly Go? Interstellar Destinations: Nearby
Potentially Habitable Worlds***

9:00 - ???	Astronomy Observing / Tours of Astronomy facilities	– Mendel Hall 4 th floor
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Prof. Laurence DeWarf, *Villanova University*

Saturday morning, March 22, 2014

8:00-9:00	Registration/ Light Breakfast	– Mendel 247
9:00-9:15	Welcoming Remarks	– Mendel 115

Dr. Jeremy P. Carlo, *Villanova University*

Paula Miller, *Abraham Lincoln HS, President – AAPT/SEPS*

9:15-10:30	Invited Morning Speaker	– Mendel 115
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Dr. Michael Brown, *Swarthmore College*

The prospects for fusion energy

10:30-11:00	Coffee Break	– Mendel 247 / Hallway
11:00-11:45	Contributed Papers and Demos	– Mendel 115

Jeffrey Wetherhold, *Parkland HS*

Uniform Circular Motion apparatus: lift of a toy airplane

Physics website: <http://www.parklandsd.org/web/wetherhold/>

Harriet Slogoff, *University of Pennsylvania*

Measuring the electric force with a milligram balance

Barry Feierman, *Westtown School (ret.)*

How Capacitors Work: Demo with Vernier equipment

11:45-12:30 **SEPS/AAPT Business Meeting** – Mendel 115

Election of new Officers for 2014-5

Report from our Treasurer

Committee Reports

Discussion of upcoming meetings

12:30 PM **Door Prize Giveaway!**

Bob Schwartz, *Kohelet Yeshiva HS*

Saturday afternoon, March 22, 2014

12:45-2:00

Lunch

– Mendel 247 & neighboring labs

Poster Session

– Mendel Center Hallway

Ian Leahy, Joseph Pollichemi, William Vogel and Jeremy Carlo,
Villanova University -- *Structural and Magnetic Properties of Distorted
Perovskites (Sr,Ca)FeO_{2.5+δ} and Sr(Fe,Co)O_{2.5+δ}*

William Vogel, Georgia Papaefthymiou-Davis and Arthur Viescas,
Villanova University -- *Degree of Inversion in Zinc Ferrite Nanoparticles
Produced by Mechanochemical Synthesis*

Anne E. Tabor-Morris, Georgian Court University
Student Attitudes Toward and Perceptions of New Material in Physics

Informal Tours of Villanova Labs

– Mendel Hall 3rd Floor

Led by J. Carlo, G. Papaefthymiou and Villanova Staff

2:00-4:00 **Parallel Workshops**

(Snack break will be offered during workshops.)

“The Role of Labs in Intro College Physics Courses”

– location TBA

Panel discussion on the design and the place of introductory college/university physics labs, facilitated by Barry Feierman (Westtown School, retired).

Panelists include:

Bryn Mawr College -- Mark Matlin

Saint Joseph's University -- Paul Angiolillo and Kathleen McElroy

Swarthmore College -- Mary Ann Klassen

Villanova University -- Jeremy Carlo

Princeton University -- Katerina Visnjic

University of Pennsylvania -- Kenneth Lande

“Math and Sustainability”

Dr. Victor Donnay, Bryn Mawr College

– Mendel 115

In this hands-on workshop, we will look at connections between topics in sustainability (energy use in solar panels, arctic ice extent, CO₂ levels) and key mathematical concepts (mathematical modeling, areas under curves, linear approximations, trig functions). These examples can be used at a variety of levels. Participants should bring laptops with a spreadsheet program.

The presenter, Victor Donnay, Professor of Mathematics at Bryn Mawr College, was Chair of the National Advisory Committee for Mathematics Awareness Month 2013 - the Mathematics of Sustainability and will describe some of the resources available at the website: www.mathaware.org/mam/2013.

AAPT Southeast
Pennsylvania Section
Spring 2014 Meeting

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Villanova University
Mendel Science Center



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