Chapter Information

<table>
<thead>
<tr>
<th>SPS ZONE</th>
<th>Chapter Number</th>
<th>ΣΠΣ Number</th>
<th>410</th>
</tr>
</thead>
<tbody>
<tr>
<td>07</td>
<td>4267</td>
<td>410</td>
<td></td>
</tr>
</tbody>
</table>

Chapter Advisors: Greg Tarle & Dragan Huterer

Email: tarle@umich.edu & huterer@umich.edu

URL: http://zonemeeting.umichsps.com

Report Prepared by: Nico Wagner - Outreach Chair 2012-13, President 13-14

nicowa@umich.edu
Welcome to the report for the Winter 2014 Zone 7 Meeting put on by the University of Michigan chapter of SPS!

On Friday, February 21, 2014, 39 SPS members representing 9 undergraduate institutions made their way to cold, snowy, and icy Ann Arbor, Michigan. Undeterred by the unusually unforgiving Michigan winter, these students brought a rich and warm atmosphere to Randall Labs & West Hall, our physics facilities, for the two-day event. Before we look at the details, let’s first take a look at how everything started about a year ago.

In March 2013, several UMich SPS members attended the zone meeting hosted by Eastern Michigan University (EMU). In talking with SPS members from EMU and Dr. DJ Wagner, we realized that we in Ann Arbor have both the facilities and the interest to host our own zone meeting. So it was decided, the University of Michigan would host the winter 2014 zone 7 meeting. Over the summer and throughout the fall semester, plans were made and amended to fit the needs of our attendees and speakers. Our first round of invitations was sent to over 300 SPS officers and chapter advisors in zone 7 and other close by universities in mid-October. We hit some major roadblocks along the way, but general logistics continued to be worked out through all of January and most of February. Official registration opened in mid-January and continued up until a week before the meeting. As participants got ready to make their way to Ann Arbor, we were finishing up the final preparations. Just as the first out-of-town guests started to arrive, we finished the final touches on months of preparation. The zone meeting was ready to begin!

Due to the logistics of classes and traveling, various chapters gradually staggered in over the course of the afternoon and evening. To break the ice, participants were encouraged to mingle while playing board games. By the time dinner arrived, everyone could be found in lively conversations about anything and everything. Following dinner and once the last chapter had arrived, we took a trip to the Angell Hall observatory and planetarium. In partnering with the Student Astronomical Society (SAS) and catching a break in the weather, we were able to give a planetarium show and do some observing using the telescopes owned by the University and Astronomy department.

This was the last official event of day 1 and participants had the option of either finding their student hosts to go to sleep, or exploring the Ann Arbor night life. Although most had had a long day and decided to go to sleep, a small group of us explored Ann Arbor. Due to a lack of a centralized facility suitable for overnight events, various SPS members at the University of Michigan offered up space in their homes for our guests. With some exceptions, all out-of-town guests were assigned to a student host who would escort them back to their house.

Day two was off to a bit of a slow start as the various hosts brought their hostees back to the physics facilities for a continental breakfast. Following breakfast, everyone made their way into the UMich physics colloquium room for the first set of talks. Talk topics were chosen such that meeting participants would be exposed to a variety of research topics as well as other
topics of interest to physics majors. We also intended to have a talk about physics majors in industry, but the speaker had to cancel at the last minute.

The first morning talk was given by Prof. Tim Chupp of the Michigan physics department. Being very into sports, Prof. Chupp talked about the physics of baseball. His talk was very interactive with the audience and included several demos. The second morning talk was given by Prof. Greg Tarle, one of our chapter advisors. In filling in for the cancelled talk, Prof. Tarle talked about one of his research fields, dark energy.

The two morning talks were followed by lunch and a small poster session. Due to car troubles for one SPS chapter, we had a relatively small session of 4 presenters. Additionally, though, one chapter brought a poster specifically on their outreach activities. So in addition to learning about on-going student research, we were also able to discuss chapter involvement in the community. Prior to the afternoon talks, Dr. DJ Wagner, SPS President and advisor for Grove City College, gave a few remarks about SPS national and opportunities provided to SPS members. A few remarks were also made by Dr. Kiril Streletzky, zone 7 counselor.

The first of the afternoon talks was given by Prof. Fred “The Great Frederico” Becchetti, also a professor at Michigan. This talk was a combined with a magic show to provide an insight into the overlap between being a physicist and a magician. In addition to being very entertaining, this talk provided some great insight into the life of physicists. The final talk of the afternoon was given by Prof. JD Smith from the University of Toledo’s astronomy department. He made his way up to Ann Arbor to talk about dust and gas in the Milky Way around us.

This ended the official zone meeting festivities and most teams made their ways back as they had long drives ahead of them. The teams from the University of Toledo and Central Michigan University, however, stuck around for a brief post-meeting competition. Each team was given 30 minutes and some supplies to complete two tasks: 1) Using only the notecards given, build the tallest structure that can hold a racquet ball and 2) build a cantilever solely out of uncooked spaghetti and play-dough that will hold the greatest weight. Although it was only a friendly competition, the team from CMU was able to leave with bragging rights for building the most successful structures.

The SPS board would like to thank the following groups and people for their help:

- Student services for helping make arrangements
- The physics demo lab for arranging demos for the speakers
- Facilities management for arranging building and room access
- Current advisors and former advisor, Henriette Elvang, for all around support and feedback
UMich SPS ready to go!

Co-outreach chair Caleb Zerger (left) and social chair Grant Renny manning the check-in table.
Meeting participants sitting together, playing games, and waiting for dinner.

Part of our group in the planetarium.
Professor Tim Chupp explaining the physics of baseball using a variety of demos.

Professor Greg Tarle giving a lecture on dark energy.
Prof. Fred Becchetti demonstrating that not all that can be seen should be taken at face value.

Professor JD Smith answering questions on the dust and gas in the Milky Way.
Team CMU and their tower/cantilever creations.

Team Toledo gets brownie points for the most creative design.
The participants of the Zone 7 Meeting at the University of Michigan.

UMich SPS would like to thank SPS national for its continued support, including the stipend which helped make this meeting possible.
### Appendix: Expenses

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Purchase</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Max</td>
<td>Misc. Supplies</td>
<td>$25.96</td>
</tr>
<tr>
<td>Costco</td>
<td>Drinks, plates, utensils</td>
<td>$128.64</td>
</tr>
<tr>
<td>Meijer</td>
<td>Competition supplies &amp; Dessert</td>
<td>$69.57</td>
</tr>
<tr>
<td>Cottage Inn</td>
<td>Pizza Dinner</td>
<td>$134.06</td>
</tr>
<tr>
<td>Bush’s</td>
<td>Breakfast</td>
<td>$182.76</td>
</tr>
<tr>
<td>Amers</td>
<td>Lunch</td>
<td>$346.80</td>
</tr>
<tr>
<td>SPS</td>
<td>Gas reimbursement</td>
<td>$40.00</td>
</tr>
</tbody>
</table>

**Total** $927.79