Saint Peter's College–
Society of Physics Students & The Collins Chemistry Society

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- 2008 Quadrennial Sigma Pi Sigma Congressional Meeting at Femi-Labs
- Monthly Experiments
- Community Service
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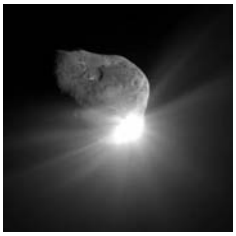
- Dr. Stephen M.S. Kaifa
- 2009 SPS Zone 3 & 7 Conference



Welcome Back Members of SPS!!!! To a New Semester, and to the rebirth of CCS

Hello Members,

Today's meeting will focus on getting together two organizations to address an important message. I am proud to say that last semester was great, we did so much as a group, and it was exciting to see that take place. This semester, I want all members to reach out to others, and help students to experience a taste of science. Now we have a bigger group, with members that are majoring in different things. We have brilliant minds in our society from all over, that separates us from the rest. Currently, I want to put together as much as is possible. My idea is to visit places not in new jersey, but in different parts of the world. Like I mentioned, we have to do some outreach. So far, I'm talking with other chapters, and working with presidents to put together an international event. This event will consist of chapters from all over the world, the smartest members in physics, chemistry, and math. Then, we will all discuss what the main problems in the world are today. Hopefully, we can all work together to solve that problem with some research, and by attending conferences that the society will pay for. Besides this, professionals have agreed to come the college and lecture us on what research is important now approaching the new year and heading towards the future. Yesterday, we had Norman Lapin take about his graduate school experience. Next month, we have an impressive women physicist coming to talk about plasma diagnostics. Then in November, 5 students and members of SPS will be attending the 2008 Quadrennial Sigma Pi Sigma Conference at Femilabs, from which 3 of those 5 students will be presenting their research at a National Worldwide Event with the Top Physicists being present to evaluate them. In December, Dr. Stephen M.S. Kaifa (Professor of Economics, and Director of the Center of Economic Education) will be coming to Saint Peter's College to talk about the How the Economy affects research in Physics. Dr. Stephen is known as a top Economist, who has written top selling books, and has taught this topic at top universities. Then, next year prepare yourselves. The 2009 SPS Zone 3 & 7 Conference comes to Saint Peter's College. This is only a portion of what's to come. I know everyone will enjoy themselves. Best of Luck

The Rebirth of, "The Collins Chemistry Society"

This semester, the Collins Chemistry Society has been activated. It's a historic period, and members of SPS are proud to be working together with CCS. Currently, we are looking for CCS members who would like to run for officer positions. Like in any club, it's great to help out your members by making a difference, and standing up for what you believe to be right. A president of CCS must have a strong commitment to the organization keeping in mind the goal of any club. The message of CCS is to inspire students to pursue careers in science areas. Also, the president should work together with the president of SPS to do joint events, and help out to attract more members.

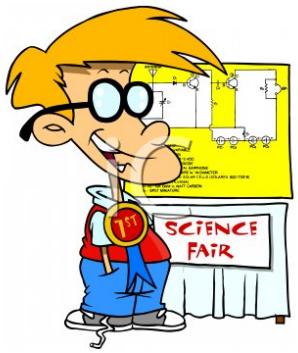
So, What's Next???

Last semester, we talked about having monthly experiments, where members would vote to perform an experiment having roles. Many members felt this was a good idea, and wanted to be involved. However, the semester was almost over. We left off picking an experiment and the roles. Once a date was picked, it conflicted with the planning for the summer. So, now starting the semester fresh, we have to re-approach this, and decide whether September is the right month to perform the experiment. If so, what day would be good, and are the roles picked in agreement with everyone. I understand this semester is busy for everyone, and I don't want to push this through. So, it's my job to either postpone this experiment for next month, or to perform it on time and then post in on our webpage. Right now, the best option is to carry it through and move on to something new. I don't just want to forget about this. Many chapters are doing monthly experiments, and I think that we should make this a part of the society. It great because others can visit our webpage and look at our results. Also, it shows other organizations that we are active and doing something good within the society. Then, it allows us to apply for funding for more activities. If this part of our society is successful, we can at some time present our results to the National Office of SPS, or send our recorded results to other chapters for publication.

It's something to consider, and I want everybody to think about it before we proceed.

Our Budget

So far, we don't have a budget. The Student Senate is working to give us one. As far as the Collins Chemistry Society, I don't want to do a budget until members have decided that it agrees with the events that will most likely be planned or carried out. So, hopefully this can be addressed today if enough members show up. However, I feel that both SPS and CCS will have enough funding to do some type of strong event. Like mentioned in the address at the beginning of this article, CCS and SPS will be doing some joint events and in the meantime, meetings will take place at similar times.



Science Fair

An idea came to me last semester, and I briefly noted it and told all members. But, we haven't really discussed this together. On September 4, on Club Fair, The Dean of Students mentioned that it's been a long time since any organization had a Science Fair. I wanted to be the first to put something together, get approvals, and act other societies to help out so the Science Fair could take place probably in late October.

So far, I think that it will be a two day event, where on the first day, there will be a series of competitions between the chemistry, biology, math, & physics majors. It will consist of trivia games, solving problems, puzzles, word knowing, and visual thinking. The top 3 students will be awarded medals for the first day. On the second day, it will consist of both a poster and oral presentation session. The poster presentation will consist of judges asking those presenting questions and giving them a grade based on creativity, answering of questions, performance, and knowledge of research.

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In oral presentations, students will be given an evaluation sheet to grade the presenter. Then at the end, the top 3 in poster and oral will be awarded. Once we come to a conclusion, I will ask for the 3 top students on the first day to stand up, following the students awarded on the second day. The major will the most medals awarded is announced, and the runner up. Then it will be published for everyone to know. This is my idea of a Science Fair. Here, students will not only be focused to win, but it should be lots of fun. Faculty will help in the judging process, and it could answer the following questions:

1) Which science prepares the student more at Saint Peter's College?
2) What kind of research is important and what major falls under it?
3) Did students learn something from completing against other majors?
4) How does a Science Fair prepare students?
5) In what ways do the science majors at Saint Peter's College brighten the students knowledge to enter into professional careers?
6) What do students at Saint Peter's College think of the Science Fair?
7) How many people were involved in the Science Fair?
8) Could this be considered an experiment to see which majors are slightly advanced then others?
9) What did students expect to get from this Fair?
10) Is Research Important?

2008 Quadrennial Sigma Pi Sigma Conference at FemiLabs

It was confirmed that our chapter has been given a travel award to attend. So far, 5 students will be attending.

1) Brian McCullough
2) Quincy Iheme
3) Tony Maldonado
4) Ronald Maldonado
5) David Jacome

And our advisor Dr .Jose Lopez & Dr. Wei-Dong Zhu (Assistant Professor of Physics). This is great news for our chapter. Out of the five students, 3 will be presenting poster presentations, Brian McCullough (Dielectric Barrier Discharge), Quincy Iheme (Spectroscopy, Building a Platform), & David Jacome (Capillary Plasma Electrode). I wish all of the participants good luck and represent the college and society in a good way. Have fun. All members should cheer them on.

Community Service Projects will be discussed in the next issue.

Dr. Stephen M.S. Kaifa

He's known as one of the top Economist in the world, with over 30 publications, and prestigious awards given to him at many universities. His famous talk is, "The effects of Economics on Physics". He will be coming in December to give a talk addressing these issues. It will consist of a 2-hour session, Part 1 & Part II, followed by a exclusive book-signing of his new book. He was also a comedian for some time, and it will be a part of his talk. Many students feel that the Economy is not good in the United States now more then ever, and we need to understand how it affects the way we study Physics.

He will talk about the Physics Behind Economy, and how the world is trying to fix the economy by inventing in science.

His new book talks about how sometimes learning a little Economy can brighten the mind of a young physicist.

He is a funny, great presenter, and top scientist & Economist, so his talk will be one of a kind and exclusive to Saint Peter's College.

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Visit the SPS Webpage at:
http://www.spc.edu/SPS

Visit the CCS Webpage at:
http://www.spc.edu/CCS

Officers of SPS: Society of Physics Students

David Jacome, President

Samik Adhikari, Vice-President email: sadhikari@spc.edu

Tony Maldonado, Secretary email: tmaldonado@spc.edu

Ronald Maldonado, Treasurer email: rmaldonado1@spc.edu

Officers of CCS: The Collins Chemistry Society

Currently, no one has announced that they wish to run for an officer position in this society. Today, a sheet will be passed, where you can wish to run. If this number exceeds two, then members of CCS & SPS will elect two nominations for officer, and those two will run. In the meantime,

Acting President is: David Jacome email: djacome@spc.edu

What is Economic Thought? How is Science involved in the Economic Thought?

Economic issues have occupied people's minds throughout the ages. Aristotle and Plato in ancient Greece wrote about problems of wealth, property, and trade. Both were prejudiced against commerce, feeling that to live by trade was undesirable. The Romans borrowed their economic ideas from the Greeks and showed the same contempt for trade. During the Middle Ages the economic ideas of the Roman Catholic church were expressed in the canon law, which condemned usury (the taking of interest for money loaned) and regarded commerce as inferior to agriculture.

In "News from the lab" (May 8, 1999) it is flattering to read that Kagel and Roth (Handbook of Experimental Economics) is "the indispensable reference" on experimental economics. But it is distressing to read that because "...unlike physics, economics yields no natural laws or universal constants" it follows that "...with or without experiments, economics is not and never can be a proper science." By this definition, astronomy, geology, biology, perhaps parts of physics itself, and certainly psychology must not be proper sciences either.

Rather than quibbling about definitions, it may help to consider how laboratory experiments complement other kinds of investigation in economics, as they do in those other sciences. Let me give an example.

One strategy for looking at field data (as opposed to laboratory data) is to search out "natural experiments," namely comparable sets of observations that differ in only one critical factor. The benefit of using field data is that we are directly studying markets and behavior we are interested in, but the disadvantage is that in natural markets we can seldom find comparisons that permit sharp tests of economic theor