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due Apr 10



Z11 Zoom Chat with Scientist/Alumni, 3pm Fri April 8

Erin O'Connor

Apr 1 at 12:46am

17

Extra credit will be awarded to those who can attend live.

**Zoom Chat with Scientist / Alumni, Fri April 8 at 3 pm (Extra Credit if you attend LIVE)**

**We had a great Zoom Meeting. Here is the recording:**

**<https://youtu.be/nfLo4SgdXuW>** **[\\_ \(https://youtu.be/nfLo4SgdXuW\)](https://youtu.be/nfLo4SgdXuW)**

- Joseph "Zippy" Connell is finishing up his PhD in theoretical particle physics at UC Santa Cruz and has enjoyed teaching physics classes while in graduate school. He grew up in Hawaii and his science career started at SBCC when he took, and then tutored astronomy and its lab, physics, and math. After transferring to UCSB and completing his bachelor's degree, he moved to Santa Cruz for graduate school, bigger surf, and more access to Nature. His research includes searching for new fundamental particles called Higgs bosons, and student-focused teaching practices (as opposed to the traditional curriculum-based approach). In his free time, he surfs (a lot), writes songs, gardens, and delves into new hobbies such as painting, cloudspotting, and pouring wine.

Each week we will set up a Zoom chat with a scientist working with astronomy, astrophysics, cosmology, or science and engineering, or an alum of SBCC from our astronomy program to see what they are doing now with school, education, or their lives and careers. Some of our former students are doing amazing things. I will be reaching out to contacts I've made over my teaching career so that we can personalize and humanize the material and create more of an "in person" classroom environment.

These Zoom chats are optional. You are not required to attend, but you are certainly invited. These meetings will be at random various times during the week, subject to the availability of our prestigious guests. The meetings are not lectures. I'm more interested in chatting with our guests to have them tell you a bit about their school, work, and interest in astronomy and to give you an opportunity to ask questions and interact with them yourselves.

If you can not attend, that is fine, you will still get full credit by watching the recording and participating in a discussion about the Zoom meeting.

After participating in the Zoom Chat and/or watching a recording of the Zoom Chat, please post your reaction to the meeting. What did you find most interesting about what they are doing or what they had to say? How is it relevant to your life or educational pursuits? What qualities about

their approach or perspective to education (or life) do you think has helped them succeed and to get to a place where a Black Holes Class teacher would want to invite them for a Zoom Meeting with their class (haha).



← Reply



**Sarah Savage** (<https://canvas.sbccc.edu/courses/46681/users/375381>)

Apr 8, 2022

It was super interesting to hear about someone working in particle physics and getting to see the diagrams Zippy's been creating using CERN's data. Particle physics and dark matter all seem very mysterious, but seeing the plotted diagrams made it all look very orderly. Zippy's personality and attitude toward physics was fun and relaxed, which was very refreshing to see! He gave a really honest perspective of what grad school might be like, and it was great to hear about UC Santa Cruz's grad program too. I didn't realize that some schools allow you to change the focus of your PhD after you've been accepted into a program. This was a very helpful presentation as I continue to think about where my path might be headed.

← Reply



**Erin O'Connor** (<https://canvas.sbccc.edu/courses/46681/users/24247>)

Apr 29, 2022

That's great to hear that this Zoom chat and along with some of the others, continue to encourage you to continue with your path. Visualizing where you will be is very important, and Zippy was able to help with that for some of you.

← Reply



**Luke Rutherford** (<https://canvas.sbccc.edu/courses/46681/users/373514>)

Apr 9, 2022

I am blown away by Joseph Connell's ability to be talented in everything he does both academically and non-academically. I admire his work ethic and honesty when it comes to how he ended up studying theoretical particle physics because he said he didn't think about studying any sciences until taking astronomy. I also admire how he constantly is trying new hobbies and keeping his mind fresh.

← [Reply](#)



**Erin O'Connor** (<https://canvas.sbccc.edu/courses/46681/users/24247>)

Apr 29, 2022

I'm glad to hear you were inspired by Zippy. I too am inspired by his energy and enthusiasm and his ability to balance hard work, research, studies, and fun, along with outdoor adventures, exercise, and being an "easy to talk to" and communicable person.

← [Reply](#)



**Malcolm Tircuit** (<https://canvas.sbccc.edu/courses/46681/users/427388>)

Apr 9, 2022

Hearing Zippy talk was awesome. First off, I didn't know that there was a time in the universe when there was more matter than dark matter. I also find it so crazy that he gets to work with data from some of the world's biggest particle accelerators. I also found it really interesting that he was working on his very own model. That seems incredibly complicated! I also really liked getting a peek into just a fraction of the problems and materials particle physicists have to work with.

← [Reply](#)



**Sarah Savage** (<https://canvas.sbccc.edu/courses/46681/users/375381>)

Apr 10, 2022

Hi Malcolm, I also didn't know that the universe used to have less dark matter. I really liked the diagram where he showed how the ratio of matter to dark matter changed over time.

← [Reply](#)



**Erin O'Connor** (<https://canvas.sbccc.edu/courses/46681/users/24247>)

Apr 29, 2022

Yes, Zippy did a great job introducing us to both the content, subject matter, and complexity, but also sharing his enthusiasm, energy, and fun attitude toward learning about the universe. Glad you enjoyed it.

← [Reply](#)



[https://](https://canvas.sbccc.edu/courses/46681/users/354278) **Alak Fryt (He/Him)** (<https://canvas.sbccc.edu/courses/46681/users/354278>)

Apr 10, 2022

What I thought was the most interesting thing about Zippy was the fact that he does all these cool things alongside doing so much crazy research. I also love to surf so hearing that he does big wave surfing "for fun" was just like "WOW" to me haha. Really interesting to me, and then I also like skateboarding and then hearing that he started painting all of a sudden and seeing the really amazing surfboard painting he did, it was all just so interesting to see.

← [Reply](#)



[http](http://canvas.sbccc.edu/courses/46681/users/24247) **Erin O'Connor** (<https://canvas.sbccc.edu/courses/46681/users/24247>)

Apr 29, 2022

One of the things I try to show with the zoom chats is that these former students who are doing Advanced Studies or who are in PhD programs, or even the research scientists who I invite to talk with us, that they have personal lives and interesting hobbies and are fun people doing fun things and getting the most out of life. Science sometimes is stigmatized with the idea that scientist don't do fun things and don't go surfing or skateboarding, so I like to break down those misconceptions and show you some real scientist and what they're doing. Glad you enjoyed the talk.

← [Reply](#)



[https://](https://canvas.sbccc.edu/courses/46681/users/403036) **Franco Diaz Campo** (<https://canvas.sbccc.edu/courses/46681/users/403036>)

Apr 10, 2022

Hi everyone,

As always, I want to thank Professor O'Connor for bringing us such an interesting guy for this meeting. I enjoyed a lot watching the entire conference, he is such an interesting guy to hear because of all his knowledge about physics. If you are passionate about physics, you

understand that this guy has a lot of future, and that he can do many things to collaborate to today's physics. I really liked the presentation he did, it was cool that he was prepared for today's meeting, he showed us a lot of interesting images and concepts that sometimes we didn't think about how it works. He is a ver talented guy, and I really like that people like him comes to our weekly meetings because it motivates me to continue studying and enjoying physics.

← Reply



**Erin O'Connor** (<https://canvas.sbcc.edu/courses/46681/users/24247>)

Apr 29, 2022

Glad to hear you enjoyed our Zoom chat with Zippy. He is very talented and s doing great things with his life, but one important thing that I wanted to convey during this Zoom chat, and with many of the other Zoom Chats, is that this person was just like you all a few years ago when he was a student here at city college, not knowing what to do with his his life, his future, and not even knowing he would major in physics. So I hope that all of you can see your own potential and future possibilities exemplified in these guests that are returning students, but who are a few years ahead and doing great things with their lives.

← Reply



**Brian Wolden** (<https://canvas.sbcc.edu/courses/46681/users/274832>)

Apr 10, 2022

It was great to hear from Joseph and his enthusiasm and knowledge were great additions to our Zoom chats. I really appreciated him sharing and explaining his research into the Higgs Boson as it is something I have wanted to learn more about for a while. It was also really cool that he discussed the new data out of the Fermilab collider in regards to the higher than expected mass of the W Boson. I had actually just read a Scientific American article about that very topic the day before and was delighted that he answered many of my questions about it before I even asked them! One of the things I love about these Zoom chats, and this one in particular, is getting to hear about the latest developments is astrophysics!

← Reply



**Erin O'Connor** (<https://canvas.sbcc.edu/courses/46681/users/24247>)

Apr 29, 2022

Yes, that was fortuitous, that we had our Zoom Chat literally a day after the announcement of a revolutionary experimental result, that the W boson had a different mass than previously believe. This has revolutionary consequences impacting the standard model and we will have to see what researchers and PhD students like Zippy have to say about that as time goes on and they are able to incorporate the new results into their mathematical models. Good stuff!

[← Reply](#) (https://**Abigail Jacobs (She/Her)** (<https://canvas.sbccc.edu/courses/46681/users/367167>)

Apr 10, 2022

Joseph Connell was super cool and I think his sharing information about transferring is super helpful for me because I am in the transferring process right now. His surfboard art is also super cool! UC Santa Cruz looks amazing and has so many opportunities for grad school which is good to know. I also think it's really interesting that a few of the people that have spoken to the class have talked about teaching along the way to their Ph.D. and the joy of doing it. There are fellowships and internships to really immerse yourself and I think that hearing this from another person motivates me to keep pushing toward my Ph.D.

[← Reply](#) (http**Erin O'Connor** (<https://canvas.sbccc.edu/courses/46681/users/24247>)

Apr 29, 2022

That's great to hear that having Zippy and others in our Zoom chats, has helped inspire you to continue working toward a PhD. That's a lofty goal, but visualization and believing in yourself are the two most important things to get started down that road. Wishing You full success and I hope you will write to me (and I will share with my classes) to tell me how you're doing as you progress with your studies and in your education.

[← Reply](#) (https://**Naomi Xu** (<https://canvas.sbccc.edu/courses/46681/users/27955>)

Apr 11, 2022

I'm really amazed at how many hobbies he just keeps picking up? And not at all astronomy related, which contrasts a lot of our past speakers who really seem to spend a lot of down time and work time doing things related to stem.

← Reply

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**Erin O'Connor** (<https://canvas.sbcc.edu/courses/46681/users/24247>)



Apr 29, 2022

Yes, that's why Zippy was such an important guest in our Zoom Chat series. I want to break down misconceptions that if someone is interested in science they can't do other interesting things, or have a life, or be adventurous, or travel, or whatever. Zippy is all of these other things, plus a great and hardworking student who comes from a family of teachers, he loves to teach and really cares about people and students.

← Reply

