





This is a graded discussion: 10 points possible

Show Due Dates



Z2 Zoom Meeting with Scientist/Alumni, 3 pm Fri 1/28

Erin O'Connor

Jan 24 at 10:49pm

24

Zoom Meeting with Scientist / Alumni, This Friday 1/28 at 3 pm (Optional Attendance) Meeting ID: 977 5426 1438, Passcode: 873684

https://sbcc.zoom.us/j/97754261438?pwd=MINJZXBpcGRNVk5XNjh5MG5sYjFSQT09 (https://sbcc.zoom.us/j/97754261438?pwd=MINJZXBpcGRNVk5XNjh5MG5sYjFSQT09)

 Dr. Tom Farr, Recently retired JPL Planetary Geologist who has worked on most all the important planetary exploration missions for the past 40 years (most of the space programs history). He also teaches our 1 unit NASA Missions class. Join us to say hello and to ask him questions about NASA planetary exploration.

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

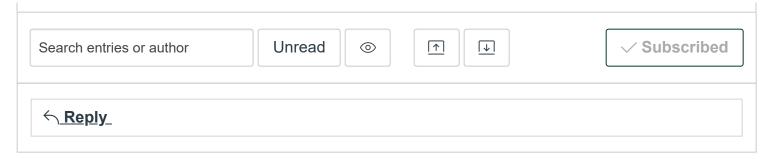
tps://youtu.be/_dW1hutPUxl (https://youtu.be/_dW1hutPUxl)

Each week we will set up a Zoom meeting 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 meetings 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 Meeting and/or watching a recording of the Zoom Meeting, 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).



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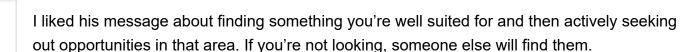


Sarah Savage (https://canvas.sbcc.edu/courses/46681/users/375381)

Jan 28, 2022

Hi everyone! I just joined this class yesterday and what a treat it was to participate in this zoom call today as my introduction to the class!

Dr. Farr has had such a long and impressive career with so many fascinating projects. It had never occurred to me how Google Earth came to have the topographical data needed to create the app, and here I got to ask him questions about his work on how he captured that data. I don't really know much about how radar works, but using it to see the surface of other planets and moons under heavy cloud cover is such a genius idea.



<u>Reply</u>

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

Jan 30, 2022

Hi Sarah. Welcome to the class, and it was great to have your "live" participation in the Zoom Meeting, and yes, it's quite an opportunity to talk to someone who was involved with literally creating the technology you use every day (whenever you GoogleMap something). He also shared with us his historical role of being the ONE scientist at JPL who trained and talked with the Apollo astronauts while they were collecting rocks on the Moon. What a carreer!

<u>Reply</u>

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

Jan 30, 2022

I really enjoyed hearing about the research he was doing on Titan and the extreme conditions that result in the methane cycle and huge bodies of liquid methane. I also appreciated hearing about the relationship between geology and astronomy. So often the focus is on physicists and engineers; it was nice to hear about space exploration from the perspective of another field. Dr. Farr clearly has a huge amount of experience and knowledge and his class sounds fascinating.

<u>Reply</u>

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

4:17pm

Originally Posted 2/13/22

Yes, that's a good point. It's not always about physics and math and astronomy, but as we expand into space with satellites and other technology, more types of jobs will find themselves involved with space.

<u>Reply</u>







Lucca Gambone (https://canvas.sbcc.edu/courses/46681/users/405319)

Jan 31, 2022

I Thought it was pretty cool hearing him talking about google Maps. very interesting, I didn't know all of that stuff went into creating google maps. I never thought twice about satellites and google maps I always took it for granted being able to pinpoint almost any location in the world with my phone.





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

4:14pm

Originally Posted 2/13/22

Yes, we live in such a technological world that we forget that behind all of these Google Maps there are actual people designing the satellite missions, and doing the programming and making sure the data is meaningful and that it can be used by us in the regular world.

<u>Reply</u>

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Luke Rutherford (https://canvas.sbcc.edu/courses/46681/users/373514)

Feb 4, 2022

I think it was interesting hearing Dr. Farr explains the different projects he worked on, specifically troubleshooting the Mars rover, research on Titan, and how he got the data used in Google Earth. It is crazy to think about all the projects he has worked on and how much he contributed to what we know today. Google Earth, something I use quite often, uses data that Dr. Farr helped assemble. The advice to find a path that's well suited and explore opportunities is important, it reminds me that opportunities don't come you unless you're looking for them. Before this, I didn't realize how a geologist could go on doing amazing things that have to do with space which gives me hope that my major could potentially allow me to work in astronomy fields.

<u>Reply</u>

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

4:15pm



Originally Posted 2/13/22

Yes, good point. Now-a-days so many fields are interdisciplinary that no matter what your interest or major, you could end up working with astronomy or space.

<u>Reply</u>

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Hana Putnam (https://canvas.sbcc.edu/courses/46681/users/427074)

Feb 6, 2022

Fascinating discussion! I'd never considered that a geologist would work to understand topographies of other planets. It makes perfect sense! I thought it was really neat that Dr. Farr recognized early on his training that the physics route wasn't really for him but was able to steer his path that allowed him to enjoy the great outdoors and do highly technical work with NASA. It's inspiring to see someone follow their passion and end up with such a cool career that is seemingly niche.

I especially enjoyed the discussion about mapping out the cycle of methane. It truly seems like something out of science fiction to think of a planet that has rivers of natural gas with sunken "ice"berg forms. I think that's one of the really great aspects of these "fireside chats" is

opening up our minds to all of the ways our knowledge can be applied in an interdisciplinary and unique way.

← Reply

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Franco Diaz Campo (https://canvas.sbcc.edu/courses/46681/users/403036)

Feb 6, 2022

Hi everyone,

I enjoyed this Zoom meeting! I found quite interesting the knowledge of Dr. Tom. When he talks, you can feel the security of his words, and we can see that he has a lot of experience on the planet. I like how he managed all his projects since he gained a lot of experience, making him the person he is today. I found it interesting how Google Earth works and the background that it has for all geologists, I had never thought about the proper use, and from now on, it will always call my attention to use it and do it with a purpose that makes sense. In conclusion, it was a meeting where I learned many things, and I enjoyed what I was hearing.

<u>Reply</u>

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

4:13pm

Originally Posted 2/13/22

Yes, we live in such a technological world that we forget that behind all of these Google Maps there are actual people designing the satellite missions, and doing the programming and making sure the data is meaningful and that it can be used by us in the regular world.

<u>Reply</u>

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Alak Fryt (He/Him) (https://canvas.sbcc.edu/courses/46681/users/354278)

Feb 6, 2022

I found it very interesting listening to Dr. Farr talk about the whole process that goes into Google Maps. There's obviously a lot that goes into Google Maps with all the satellites and everything but hearing someone who actually works on this specific thing is very intriguing. Like hearing the process and all the data explained out loud was just crazy to me and I found it very fascinating.

<u>Reply</u>

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

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4:13pm

Originally Posted 2/13/22

Yes, we live in such a technological world that we forget that behind all of these Google Maps there are actual people designing the satellite missions, and doing the programming and making sure the data is meaningful and that it can be used by us in the regular world.

<u>Reply</u>





<u>Lukas Gott (https://canvas.sbcc.edu/courses/46681/users/417976)</u>

Feb 6, 2022

I found it amazing how Dr. Farr helped create Google Earth and it was interesting to hear how geography went into the project. I mean I guess I always assumed they had to survey the earth but I never considered the individual work that went into it. I think we can all appreciate the work he put into Google Earth though!

<u>Reply</u>

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

4:14pm

Originally Posted 2/13/22

Yes, we live in such a technological world that we forget that behind all of these Google Maps there are actual people designing the satellite missions, and doing the programming and making sure the data is meaningful and that it can be used by us in the regular world.

<u>Reply</u>

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Abigail Jacobs (She/Her) (https://canvas.sbcc.edu/courses/46681/users/367167)

Feb 6, 2022

I think it's amazing that Dr. Farrwent all the way to a Ph.D. at Washington state which is where I was born! His work with geology is also very interesting, the maps that they created maps for sinking land. The airplane that they used was amazing, the equipment and the setup they had was so cool to see. I think the most amazing work that he has done was with all of the radars and the mapping of different areas, he was able to go on many beautiful trips along the way and explore!

<u>Reply</u>

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

4:15pm

Originally Posted 2/13/22

Yes, he had some really good stories to share. That's neat that you are from Washington State and could relate to what he had to say about where he went to school.

<u>Reply</u>

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Lexie Brent (https://canvas.sbcc.edu/courses/46681/users/122267)

Feb 8, 2022

Dr. Farr's career is so fascinating! It's amazing that someone who has been involved in so many important projects and missions is now sharing his experience and teaching right here at SBCC. I was very interested in how his career in astronomy has been so hands-on. I don't usually think of astronomy-related jobs involving much physical work so this opened my eyes to how vast this field of science really is (here on earth I mean haha).

As a history fan, I can't help but marvel at how far we've come in our scientific thinking. From Aristotle's idea of quintessence and the belief that everything else in the universe is made from an entirely different material than earth to *now* being able to study the earth not only to understand objects in space but to be able to reach the objects to study *them*!

<u>Reply</u>

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

4:12pm

Originally Posted 2/13/22

Yes, it's fortunate that we have gotten to know him and he also sets up trips to JPL and I'll be sure to let you know if we do that this year sometime. Good to hear you are a history fan!

<u>Reply</u>





Malcolm Tircuit (https://canvas.sbcc.edu/courses/46681/users/427388)

Feb 13, 2022

It was very interesting hearing Dr Farr talk about the process of scanning planet surfaces. I never gave a second thought to where the high resolution scans of planets came from. His talk was very enlightening. I also found it very interesting that they could detect small changes in the surface level of certain parts of earth. I imagined how exiting it would be to be one of the first people to see the surface of a moon of Saturn, that being Titan. I also found it very amazing that Google Earth used their data to show the topography of the surface of earth.



<u>Reply</u>





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

4:16pm

Originally Posted 2/13/22

Yes, and what's even more amazing, is that his current research and projects are helping to show that the entire Central Valley has dropped a few feed in elevation due to having all the ground water pumped out. It's a serious problem that's going to get worse.

<u>Reply</u>





Benet Bouchard (She/Her) (https://canvas.sbcc.edu/courses/46681/users/408920)

Mar 3, 2022

Having such a deep knowledge from such a long career I think is so interesting to come by. It must be very special to have found something so meaningful to you that you put 40 years into it and it must also be very fascinating to be watching a field evolve in so many ways, I

definitely hope to someday have that feeling! From being in the first group of people to see pictures of the surface of Titan to working on topographic maps, he worked on so many cool projects! I also really enjoyed seeing the pictures that he showed!

<u>Reply</u>





Naomi Xu (https://canvas.sbcc.edu/courses/46681/users/27955)

Tuesday

My instinctive thought was how surprised I was to see a geologist working with space, but then why wouldn't they, geologists are specialists in rocks and such and that's not just for earth despite us literally being called dirt. Our moon is literally a rock that fell off of us in a sense and because of geologists, we're able to know that and when it happened. I think my biggest takeaway is just really you can do anything in any field.

← Reply





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

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Wednesday

That's a good point, a great take-away! If you love a particular subject of field, you can do so much with it. You can "make it" part of almost anything else you want to do. Well said!

<u>Reply</u>