

SEEING REALITY:

Conversations in Science, Faith & Philosophy

A MAGI PROJECT



SUMMER SEMINAR

JUNE 5 – 9, 2017
Collegium Institute
University of Pennsylvania

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THANKS TO OUR SPONSORS

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SEEING REALITY

Conversations in Science, Faith & Philosophy

How do we understand the universe and our place within it? To what extent should our answer to that fundamental question be different whether we approach it as scientist, philosopher, or theologian? What are the methodological differences that must be respected and which frameworks could enable them to fit together into a coherent whole? Faced with the widespread fragmentation of disciplines, how can we seek fruitful exchanges of insight in the modern academy?

This one-week residential Collegium Summer Seminar will address these questions, welcoming a small cohort of graduate students to Philadelphia for an intensive course led by eminent scholars across the disciplines. Through a daily series of lectures,

seminars, and small group discussions, students will examine both cutting edge research and foundational wisdom that enables them to evaluate descriptive models of the universe, the relationship of space and time, freedom and determinism, physics and metaphysics, nature and grace, the human and the divine.

Drawing together insights from the sciences, theology and philosophy we will build a toolkit to explore how we can describe reality in an integrated, intellectually rigorous way.

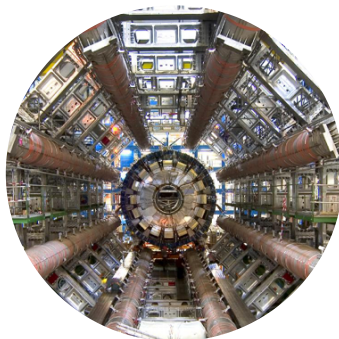


GETTING THE MOST OUT OF THIS SEMINAR

Marisa to write

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GUIDELINES FOR GROUP DISCUSSION

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GUIDELINES FOR SEMINAR DISCUSSION

Marisa to write

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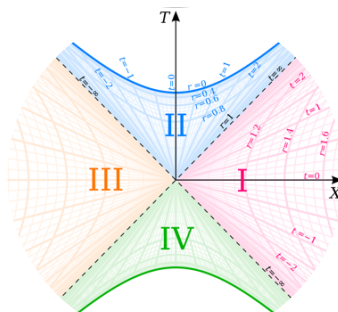


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THE HOSTS

Marisa to write



Dr. Marisa Cristina March

Dr. Marisa Cristina March is a cosmologist at the University of Pennsylvania where she carries out research in the field of dark energy science, a field that seeks to understand the acceleration of the Universe. Dr. March works on galaxy lensing for the future Euclid space mission, and she works on supernova cosmology for the ground based Dark Energy Survey. Dr. March studied theoretical physics at Imperial College London, where she also carried out her doctoral research on advanced statistical methods for astrophysical probes of cosmology; she also holds a Bachelors degree in Catholic Theology from Heythrop College London.



Daniel J. M. Cheely, Ph.D., *Executive Director*

Dr. Cheely is a historian of the Renaissance and Reformation. He graduated *summa cum laude* from Princeton University and completed his Ph.D. at the University of Pennsylvania. His research has been supported by grants from the Social Science Research Council, the Pew Charitable Trust, the Huntington Library, the Institute for Humane Studies, the Witherspoon Institute, the Bradley Foundation, the Catholic Record Society, and the Harvey Fellows Program of the Mustard Seed Foundation. His scholarship has been published in *Church History: Studies in Christianity & Culture* (Cambridge), *The European Legacy* (Routledge), and *The Encyclopedia of the Bible and its Reception* (DeGruyter), and has been presented at the Institute for Historical Research, the American Academy of Religion, Sixteenth Century Society & Conference, the Renaissance Society of America, the American Society for Church History, the Mid-Atlantic Conference of British Studies (where it was awarded the annual prize for best graduate student paper), and other conferences in the United States and Europe.

Before beginning doctoral studies at Penn, he joined Teach For America in Chicago, where he taught eighth grade for R.S. Abbott School, chaired the social science division and partnered it with local universities through the Chicago History Project, and was awarded his school's teacher-of-the-year distinction. He is now, while serving as Executive Director of the Collegium Institute, also a Resident Senior Fellow of the Fox Leadership Program at the University of Pennsylvania and Lecturer in Penn's History Department.



Katie Becker, *Executive Assistant and Office Manager*

Ms. Becker graduated from Hillsdale College in 2008 with a B.A. in Classical Studies, concentrating in Latin. She was a part of the national classics honorary, Eta Sigma Phi, where she took first place in the Maurine Dallas Watkins Sight Translation Contest for Koine Greek her senior year. She taught Latin at the junior high level for four years, before spending a year in Rome studying Italian at the Società Dante Alighieri. Having completed a post-baccalaureate certificate in Classical Studies at Penn, she is beginning a M.A. in Classics at Villanova this fall. She enjoys both classical and modern Romance languages, and is constantly seeking ways in which her academic studies can find action in daily life.

THE SPEAKERS



Rev. Dr. Andrew Pinsent, Research Director of the Ian Ramsey Centre for Science and Religion at Oxford, Research Fellow of Harris Manchester College, and Faculty in Theology and Religion at Oxford University. Additionally, he has contributed to dozens of publications in physics, theology, and philosophy, and he has spoken widely on science and theology, including interviews on BBC and EWTN. His personal research interests include: philosophy of religion, virtue ethics, metaphysical issues in contemporary science and theology, and philosophy of persons.



Prof. Hans Halvorson, Stuart Professor of Philosophy and Professor of Mathematics at Princeton University. His current research focuses on applications of category theory in mathematical logic. He has also done research in philosophy of physics. Ultimately, he aims to move from science to wisdom: Is science the only source of knowledge, or can knowledge arise from moral intuitions, religious traditions, etc.? Although such questions are more speculative, he has written about the relationship between science and religion, such as methodological naturalism.



Prof. Karin Öberg, Harvard-Smithsonian Center for Astrophysics and Thomas D. Cabot Associate Professor of Astronomy at Harvard University. Prof. Öberg's academic passion is the connection between planet formation, astrochemistry and origins of life. Her research aims to uncover how chemistry and physics interact during star and planet formation to shape the bulk and organic compositions of nascent planets. Among other awards she is the recipient of the AAS Newton Lacy Pierce Prize, the Packard Fellowship, and the Alfred P. Sloan Fellowship.



Prof. Marie I George, Professor of Philosophy at St. John's University, NY where she teaches philosophy of biology, philosophy of science & religion, and environmental ethics. Prof. George is an Aristotelian-Thomist whose interests lie primarily in the areas of philosophy of nature and of science. She was co-recipient of a Templeton grant for an interdisciplinary project entitled: "The Evolution of Sympathy and Morality" and is author of *Extraterrestrials and Christianity?* Currently, she is working on the question of whether empathy is present in non-human animals.



Rev. Dr. Thadeusz Pacholczyk, Director of Education at The National Catholic Bioethics Center in Philadelphia and the Center's National Catholic Certification Program in Health Care Ethics. He writes and speaks widely on bioethics and medical ethics throughout the U.S., Canada, and Europe, including commentaries for numerous media outlets, such as NBC Nightly News and the New York Times. Rev. Dr. Pacholczyk has earned degrees in philosophy, biochemistry, molecular cell biology, and chemistry, and also a Ph.D. in Neuroscience from Yale University.

THE PARTICIPANTS



John Rhee:

I am currently a fourth-year medical student at the Icahn School of Medicine at Mount Sinai in NY. I completed a BS at Cornell University in Policy Analysis and Management, and a Master of Public Health with a concentration in Epidemiology at Mount Sinai. I will be applying into Neurology for residency, followed by a Palliative Medicine fellowship. My research interests are in global palliative care, and I spent the past year conducting research on palliative care development in Africa. I am personally interested in bioethics, specifically around end-of-life care, including physician assisted suicide and euthanasia. I was born in Queens, NYC, but went to middle and high school in New Jersey. I consider myself a religious Catholic; my faith is at the center and core of my life.



James Smith:

I am a PhD candidate in geophysics at Princeton University. I completed a B.S. degree in geosciences from Colorado State University and a B.A. in mathematics from Knox College. My academic interests are in near-surface imaging, theoretical psychology, and philosophy of science. My father was a preacher and I have tried my hand at several religions, but I am currently agnostic. I spent my childhood in rural Scotland, moved to the U.S. at the age of 10, and have since lived all over this country. I enjoy climbing, mountain biking, trail running, and mushroom hunting. I plan on working in industry or government after graduation. I am hoping to use this workshop to consider how differing views of reality can be integrated into one that both encourages curiosity and gives us a sense of personal meaning and community ethics. *How do religious scientists assimilate scientific theories that contradict their religious reality? How can we see reality in a way that gives hope to those who get stuck in mental suffering and their own ego?*



Ryan Shea:

I am currently a Ph.D. candidate in Philosophy at The Catholic University of America. I live in Providence, RI where I teach philosophy and the humanities at Providence College. My alma mater is Thomas Aquinas College, a Great Books college with a single mandatory course of study. My primary research interests are science generally, biology specifically, natural philosophy, and the history and philosophy of science. My master's thesis was on the relationship between Francis Bacon and Galileo in the Scientific Revolution and my current dissertation project is on Aristotle's account of living things. I am also dedicated to liberal education generally and to finding ways to integrate science into a liberal education. After finishing my Ph.D. I would like to teach at a small four year liberal arts college. I am excited to be attending this workshop as all of the topics discussed are of great interest to me. Further, each of the specific topics is directly relevant to courses that I teach (intro to philosophy, philosophy of science, and environmental philosophy). Lastly, I hope to organize similar seminars later in my career and hope to learn a lot from the direct experience of participation.

THE PARTICIPANTS



Ryan Womack:

I am a PhD candidate in Religion and Literature at Baylor University. My dissertation is about the various integrations of science and theology in four Catholic writers. I graduated from Oklahoma Baptist University with a degree in English and History and Biology minors. I have spent the past year at the University of Mary in Bismarck North Dakota as a Catholic Studies Fellow, and am moving to Austin, TX as Assistant Director of the Austin Institute for the Study of Family and Culture. Outside of study and work, I like playing music, watching movies, fishing, and overly-complicated board games. Raised Southern Baptist but confirmed Catholic five years ago, I have run full steam ahead in trying to understand reality as a Catholic, which is to say as a "whole," and my basic beliefs are the creeds and catechism, but also what Hopkins says, that "Each mortal thing does one thing and the same...myself it speaks and spells." I have lots of questions. *For the mathematicians and physicists, how can we describe human behavior as a dynamical system (or can/should we), and could a person be considered a "strange attractor"? For the medical professionals, how do we understand the role of the spiritual life in treating the whole person? For the group, what is the role of imagination in your discipline?*



John Tracy:

I grew up in Silver Spring, MD and since I was young have always enjoyed reading, hiking, gardening, visiting botanical gardens, and anything to do with maps. I am currently a Ph.D. student in the Department of Geosciences at Princeton University. My lab-based research is looking at the biochemistry of a newly discovered bacterial organelle and trying to figure out if this organelle has a role in a process called anaerobic ammonium oxidation, which is one of the most important microbial pathways in the ocean. More broadly, while I'm in graduate school I would like to study ocean chemistry, environmental policy, and microbiology. Although I'm studying science now, I majored in Theology and Biology during my undergrad at Fordham University, where I also enjoyed being a part of Fordham's Great Books Program. I think my ideal career after I graduate would be to become a professor of earth science, environmental policy, and ethics. I have long been interested in the essential questions of life: *what is unique/valuable/special about being human? Is there a God? What does it mean to be good?* Due to the rapid scientific and technological advances that occurred in my lifetime, I have been forced to ask: *Are human beings merely biochemical machines who reside on a very beautiful but small planet adrift in a universe much larger than our home?* I hope this seminar will help me to reconcile or even integrate these two sides of myself while answering the above question.

THE PARTICIPANTS



Christina Kreisch:

I am an astrophysics Ph.D. student at Princeton University. I graduated from Washington University in St. Louis in 2015 with a double major in physics and mathematics. After graduating I spent a year in Germany with a DAAD Scholarship doing research at the Max Planck Institute for Astrophysics. I grew up near St. Louis, Missouri and enjoy singing and riding horses. I grew up Catholic and have had a strong interest in theology and philosophy throughout my life. My research interests focus on pursuing the fundamental questions of our universe, like “where does the universe come from?”, with both theory and observations. This coming year I will work on two different cosmology projects, one relating to bouncing cosmologies (as opposed to Big Bang cosmologies), and the other dealing with structure formation in the universe.

Science is founded on evidence, but faith requires belief even if something is not certain, lending support to the opinion that science and theology are contradictory. But what about our scientific theories that have not been fully proven yet, like GR and inflation, that so many scientists incorporate in their work? What about when the laws of physics break down at the beginning (was there a beginning?) of the universe, or in the center of black holes? I am interested in hearing the opinions of others on how the knowledge from each discipline can be integrated in a consistent way with each other.



Willy Munyao:

I am a thirty six year old married catholic man who has a deep love for God. My desire is to live a life that is pleasing to God each day of my lifetime. I was born and brought up at Machakos, a town located about fifty miles from Nairobi, in Kenya. I am married to one wife and we have been blessed with five children. I am a peer educator and I like helping people. My dream is to become a lecturer and a researcher in HIV Biochemistry. I pursued my undergraduate degree in Biochemistry and Zoology at the University of Nairobi in Kenya and I am currently working towards completing my research masters degree in Biology at Saint Joseph's university. My thesis research is on the molecular effects of climate change on plant flowering times. Working on this project has greatly enlightened me on the negative impacts of climate change. After graduation, my desire is to move on to doctoral studies in Biochemistry and Pharmacology. I do not have any particular questions for now. I am coming to the seminar with an open mind and I am really excited to be a participant.

THE PARTICIPANTS



David Swigart:

I have recently completed my BA at the University of Pennsylvania within German Studies and General Philosophy. My academic interests are still immature and ill-defined, but include Nietzsche's will to truth and ascetic ideal (along with the meaning and worth of "truth" in general); concerns with the variable meaning of "being" and "existence" between philosophy of science, ontology, and theology; "weakness of will" and dealing with motivational difficulties within ethics; and ideas and ideologies concerning the status and equality of the human being in relation to general conceptions of and scientific advances within genetics and evolution. My state of belief or faith is also ill-defined, but I would describe my relationship to it as necessitated, and internally polemical and contradictory.

In very general terms, I hope to understand how the different "realms" of thought (science, philosophy, and theology) fail to communicate with each other due to fundamental differences, specifically due to irresolvable or diametrically opposed premises or presumptions. I want to consider two questions that are related to this hope: how these chasms between the realms may be resolved, and if they should or even need to be resolved. This hope and the adjoining questions force me to ask what the fundamental differences among the different realms are, specifically ones that make impossible either their unification or their original unity. I also want to know the limitations of these realms should they be united. When one successfully combines the three realms, in what way is this unity limited in grasping the entirety of greater things, which I would loosely coin as knowledge, truth, and being, beyond mere epistemological or intellectual claims?



Laura Wells:

I'm a third year PhD student in mathematics at Notre Dame. I did my undergraduate at Providence College, majoring in mathematics and humanities, and I have been fortunate to be able to keep this interdisciplinary education growing by continuing to explore philosophical interests through the History and Philosophy of Science program at ND. On the mathematics side, I'm interested in algebraic topology and its application to topological field theory, a mathematical model for quantum field theory. I find the philosophical questions related to these topics also fascinating: *What role does mathematics play in scientific theories? What are the philosophical implications that come from the modern, highly-geometrized description of spacetime as a model of reality? Are these descriptions fundamental; is mathematics playing a conventional, descriptive role, or is the mathematics in science pointing to a deeper truth about the structure of reality? What is the relationship between the search for a mathematical description of reality and a reductivist view of the universe?* When I graduate from Notre Dame, I plan to be a college math professor, and hope to be able to incorporate these interdisciplinary questions into my classroom, pursuing the Truth from a multitude of perspectives. I'm looking forward to learning about how the different disciplines represented at this workshop contribute the questions about scientific discovery, the pursuit of knowledge and wisdom, and our relationship to the world. I was born in Wisconsin and my family has moved around quite a bit: Texas, Arizona, New York and a two year stint in Belgium. Besides traveling, I also enjoy experimenting in the kitchen, hiking scenic trails, digging in the garden, and throwing mud in the ceramics studio.

THE PARTICIPANTS



Richard Choate

I am a doctoral student at the Graduate Theological Union and the University of California at Berkeley, working closely with the Francisco J. Ayala Center for Theology and the Natural Sciences. My academic interests include the origins and philosophy of language, evolutionary anthropology, and patristic and medieval theology. I am originally from Dallas, Texas. As an undergraduate, I studied philosophy at the University of Texas at Austin, after which I completed a master's degree in philosophy at the Center for Thomistic Studies at the University of St. Thomas. I am an active member of the North American Patristics Society, the American Catholic Philosophical Association, and, most recently, the Society of Catholic Scientists. Outside of academia, I spend a great deal of time working at the equestrian center where I live with my family and at Our Lady of Fatima Russian Byzantine Catholic Church where we are parishioners. In the fall, I plan to start my diaconate formation at Our Lady of Fatima.



Noel Naughton:

I am currently pursuing a Ph.D. at the University of Illinois at Urbana-Champaign in Mechanical Science & Engineering. My current research looks at using quantitative imaging modalities to investigate the relationship between muscle structure and function. I am also very interested in questions at the intersection of faith, philosophy and science, such as how emergent properties fit within a scientific context, particularly in regard to questions of conscience, free will and human uniqueness. Additionally, the relationship between the doctrine of Original Sin and monogenetic vs polygenetic accounts of human origins is of interest to me. I attended the University of St. Thomas in St. Paul, MN as an undergraduate and majored in Mechanical Engineering with a minor in Catholic Studies. I am currently an assistant coach for the Illinois Rowing team.



Matthew Berkeley:

I am a PhD student in the Physics Department at The Catholic University of America. My research is with the Cosmology group at NASA Goddard Space Flight Center, where I am working on characterizing CMB foregrounds and testing detector feedhorns. Originally from Ireland, I received my undergraduate degree in Physics and Astrophysics from Trinity College Dublin before moving to Strasbourg, France, for a Masters in Space Studies at the International Space University. I have been in the US since 2013. I am a practicing Catholic with a keen interest in the history and philosophy of science as well as theology. I am looking forward to meeting others with a similar interest.

THE PARTICIPANTS



Wendy Wong-Schrimer:

I am a research fellow at the McNeil Center for Early American History. I completed my undergraduate in History and Mathematics at Simon Fraser University and continued on to receive my PhD in History from Temple University. In my research, I am interested in the history of ideas and cultural and political history, but I also have a strong interest in philosophy and theology. I currently reside outside Philadelphia and hopes to eventually teach at a Catholic university or liberal arts college. During this workshop, I hope to understand how those who specialize in the sciences grapple with the perceived antagonism between faith and science, which I believe often becomes a bit of a received narrative for those of us in the humanities. While I do not have any questions at present, I'm sure they'll arise during the talks.



Michelle Falcetano:

I am currently a doctoral candidate in the Philosophy Department and an adjunct instructor in the Ethics Department at Villanova University. My main areas of focus are in Christian Philosophy, Mythopoiesis, Epistemology, and Philosophy of Literature, with particular emphasis on the work of Saint Augustine, Pseudo-Dionysius, the Inklings, and William Desmond. I am also nurturing growing interests in Post-Colonialism, Philosophy of Science, and Metamathematics. My dissertation is currently titled "Confession as Narrative Contemplation: Imagination and Intellection in Saint Augustine's Religious Epistemology", and I am working with James Wetzell, William Desmond, and Walter Brogan. Outside of the classroom, I love hiking, painting, Lindy Hop, early Jazz music, and writing poetry.

In this workshop, I am looking forward to engaging with scholars from a variety of disciplines on the epistemological status of physical laws, the poetic nature of mathematics and religion, and the relationship between subjectivity, time, and knowledge.



Nicole Palin:

My academic interest currently is to finish my graduate program and to continue at Saint Joseph's University and apply to the Interdisciplinary Doctor of Education Leadership (Ed.D.) which will start in Fall 2018 if accepted. Other interest include research & focus on health disparities within Vulnerable Populations and the usage of Geography Information Systems to help decrease these health threats among this population. My beliefs are rooted in the religious faith of Holiness and that God is one. It is also about the characteristics that he has outlined in the Holy Scriptures.

I am originally from North Philadelphia but recently moved to Northeast section of the city. Other interests are reading, listening to music, volunteering. In addition, going on to the Educational Doctorate program is my goal. My sincere hope for this seminar is to learn more about humanity, including our purpose on this Earth and how we can continue to create a better world and society. To reiterate, my focus is decreasing health disparities within Vulnerable Populations I hope this seminar can produce more solutions to do this which can in turn save lives.

THE PARTICIPANTS



Devin Buckley:

I am a PhD student in English literature at Duke University studying the Romantic period (circa 1789–1830). Prior to Duke I completed a one year master's degree at the University of Chicago in English literature. As an undergraduate I double majored in Neuroscience and Philosophy with strong interests in phenomenology, aesthetics, and philosophical theology. My recent work focused on the phenomenology of solipsism in T.S. Eliot's early poetry and his rejection of the secular philosophy of the English idealist F.H. Bradley in favor of Anglo-Catholicism, and on Augustinian motifs in Romantic poetry, notably in Percy Shelley's "Alastor." These interests are part of a broader interest in intersections between philosophy and literature in major poet-thinkers of the Romantic period who adopt and adapt pre-modern conceptual frameworks in reaction to what they perceive to be the limitations of Enlightenment rationalism and scientism. At this seminar I hope to discuss the manner in which science has been construed to be compatible with or in opposition to faith across intellectual history. *What key philosophical assumptions are necessary for science, if any, and to what extent do they bolster or conflict with the key positions of various theologies, especially Christian theologies?*



Michael Vazquez:

I am a doctoral student in philosophy at the University of Pennsylvania, as well as a Graduate Fellow at the Collegium Institute. Prior to my doctoral studies, I received a B.A. in Philosophy and Humanities from Villanova University (2014) and completed the post-baccalaureate program in Classical Studies at the University of Pennsylvania (2015). I am primarily interested in Ancient Greek and Roman moral philosophy, especially Stoicism. I also maintain an active interest in ethical theory (esp. moral psychology & metaethics), formal logic, and intellectual history. I was drawn to the workshop by the breadth and scope of the lecture topics, and by the prospect of conversing with folks interested in such questions.



Garry Moore Soronio:

I studied philosophy and history at the University of California, Los Angeles (UCLA). I was born in Cebu, Philippines, and migrated to the United States where I earned Associate Degrees in history, biological and physical sciences, and then pursued my Bachelor's Degree with a double major in philosophy and history, studying under Calvin Normore and Tyler Burge. I am Roman Catholic and I founded the Catholic Forum at UCLA, a weekly discussion on philosophical systems of various medieval and early modern philosophers. My major interests in philosophy were initially ethics and philosophy of religion, and later broadened to include philosophy of biology, philosophy of physics, medieval and early modern philosophy. Among the topics I am currently working on are debates in classical theism, the compatibility of population thinking with Aristotelian essentialism, and the bearing of presentism vs eternalism debates on the nature of time with substance based ontology. Among my outside interests (before philosophy took the lion's share of my time) are biking California's beaches, dancing, playing Frisbee, and camping.

THE PRESENTATIONS

Hans Halvorsen – Monday Afternoon

What Does Theology Have To Do With Physics, Anyways?

Hans Halvorsen

Abstract: I propose a framework for incorporating contemporary physics and theology into a single coherent worldview. In order to do so, we'll have to dispel three myths. 1. The myth that science and religion are antagonistic. 2. The myth that science and religion are "non-overlapping magisteria." 3. The myth that physics -- and science more generally -- can lead us to knowledge of God, in absence of commitment to seeking God. After dispelling these myths, I'll show how theology can interact in a positive fashion with physical cosmology and quantum theory.

Personal Notes:

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THE PRESENTATIONS

Hans Halvorsen – Monday Afternoon

Suggested Questions for Group Discussion:

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Note Space & Prompts for Group Discussion:

Note Space & Prompts for Seminar Discussion:

Ideas I want to follow up on:

THE PRESENTATIONS

Karin Oberg – Tuesday Afternoon

Faith, Reason, and the Search for Extraterrestrial Habitable Worlds

Karin Oberg

Abstract: During the past decade a new cosmos has emerged where every star is its own world, a world in the sense that it hosts its own planetary system. Characterizing these systems, especially with regard to potential habitability of exoplanets, has become a priority in the astronomical community. I will present some highlights of the work I have lead on furthering our understanding of how often such planets may be hospitable to an origins of life similar to that believed to have occurred on Earth 3-4 billion years ago. I will present some reflections on how present and future discoveries within this topic may tie in with our Catholic faith. I will also offer some more personal thoughts on how my conversion story fits with my development as a scientist and how I have attempted to live out my Catholic faith as an astrophysicist at Harvard.

Personal Notes:

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

THE PRESENTATIONS

Karin Oberg – Tuesday Afternoon

Suggested Questions for Group Discussion:

- *Would the discovery of alien life affect your view of God's relation to man and creation? How about a possible discovery that life in the Universe is extremely rare?*
- *What would be theologically most exciting about finding life outside of Earth? What would be the scientifically most exciting?*
- *Do you expect living out your faith will be an obstacle when trying to advance in science?*
- *In which ways does your faith inspire your scientific pursuits?*
- *How does your scientific understanding of the world inform your relationship to God as creator?*

Note Space & Prompts for Group Discussion:

Note Space & Prompts for Seminar Discussion:

Ideas I want to follow up on:

THE PRESENTATIONS

Marie George – Wednesday Afternoon

Title TBA

Marie George

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THE PRESENTATIONS

Marie George – Wednesday Afternoon

Suggested Questions for Group Discussion:

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Note Space & Prompts for Group Discussion:

Note Space & Prompts for Seminar Discussion:

Ideas I want to follow up on:

THE PRESENTATIONS

Speaker #4 TBA – Thursday Afternoon

Title TBA

Speaker Name

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THE PRESENTATIONS

Speaker #4 TBA – Thursday Afternoon

Suggested Questions for Group Discussion:

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Note Space & Prompts for Group Discussion:

Note Space & Prompts for Seminar Discussion:

Ideas I want to follow up on:

THE PRESENTATIONS

Speaker #5 TBA – Friday Afternoon

Title TBA

Speaker Name

Abstract: Donec tempus iaculis odio. Nunc ultricies sollicitudin tempor. Pellentesque efficitur tellus eget euismod ultricies. Duis blandit ultrices nunc, eget ullamcorper enim elementum at. Phasellus ultrices felis sit amet accumsan ultrices. Mauris sed massa pulvinar, faucibus ligula quis, placerat ipsum. Etiam eget augue dolor. Vestibulum eget erat vel neque mattis aliquam a et massa. Sed nec justo lectus. Donec vulputate diam eget mauris fringilla, ut cursus tortor condimentum.

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THE PRESENTATIONS

Speaker #5 TBA – Friday Afternoon

Suggested Questions for Group Discussion:

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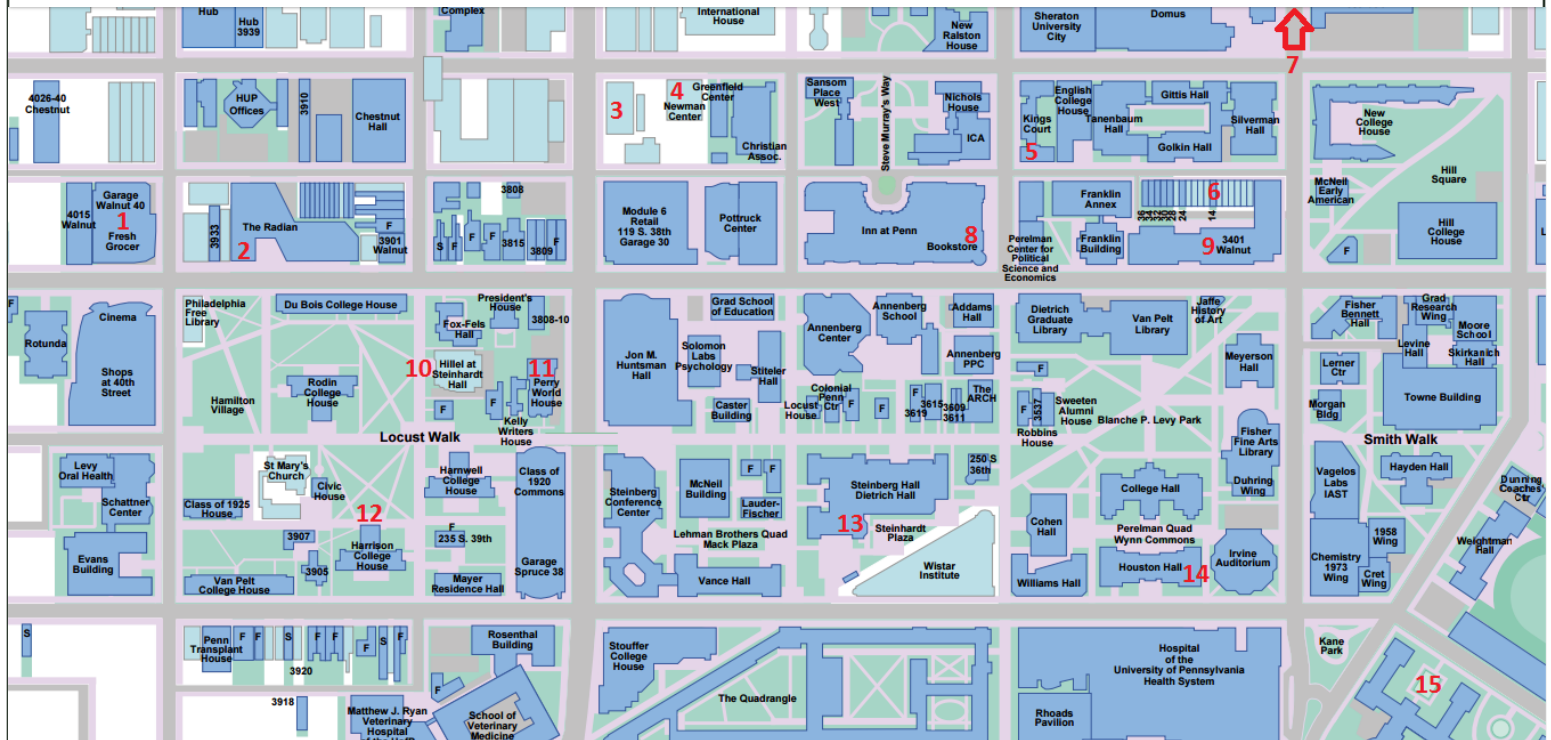
Note Space & Prompts for Group Discussion:

Note Space & Prompts for Seminar Discussion:

Ideas I want to follow up on:

CAMPUS MAP

See Key below

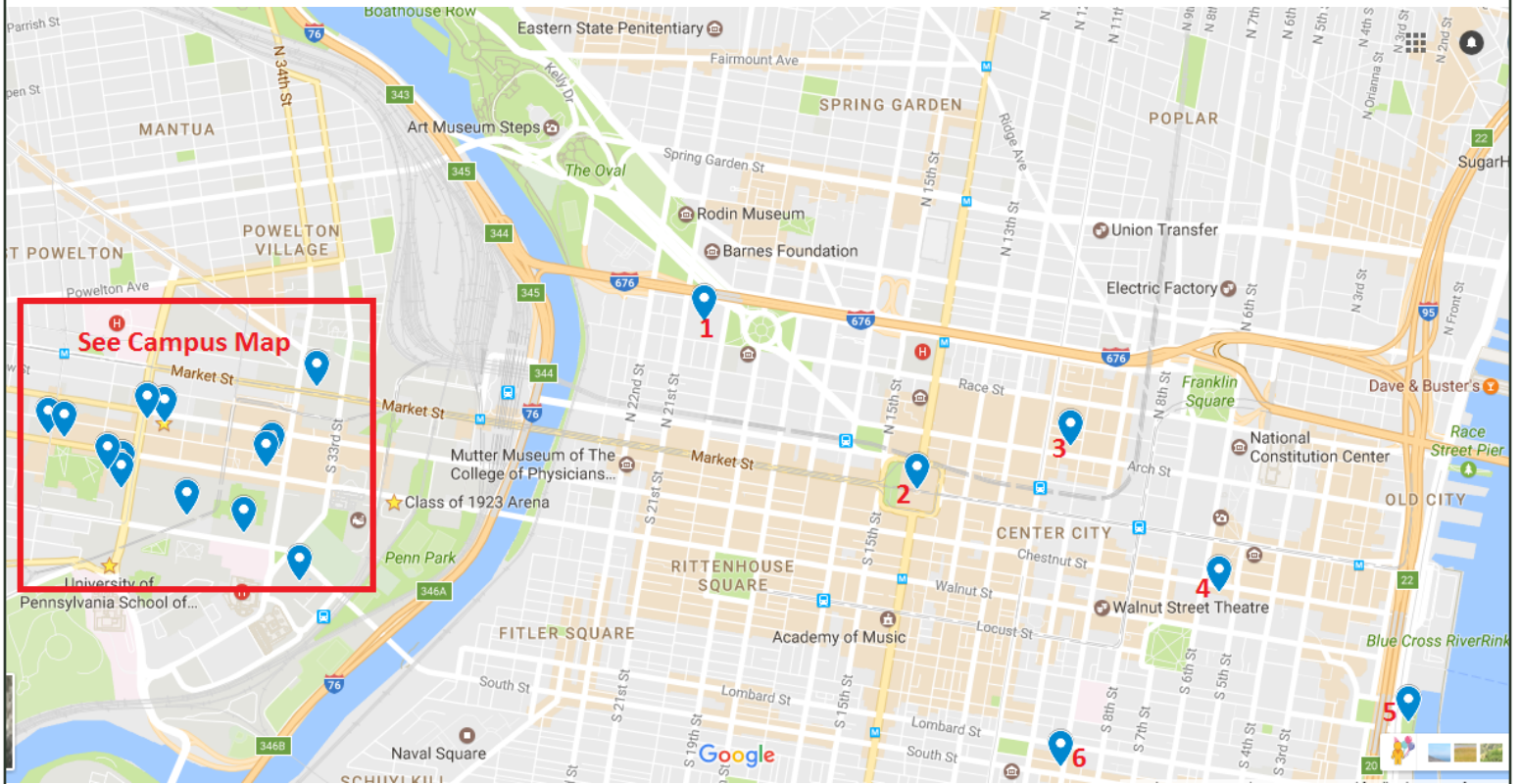


The major sites of our seminar and some locations you might visit are identified by red numbers on the campus map. They are numbered from left to right and top to bottom, with 1 found at the upper left-hand corner.

- | | |
|--|---|
| 1. Fresh Grocer Grocery Store | 8. Penn Bookstore |
| 2. CVS | 9. CVS |
| 3. St. Agatha-St. James' Roman Catholic Church | 10. Hillel at Steinhardt Hall |
| 4. Penn Newman Catholic Center | 11. Perry World House (Workshop location) |
| 5. King's Court English College House (Lunch) | 12. Harrison College House (Residence) |
| 6. New Deck Tavern (Tuesday Dinner) | 13. Joe's Cafe (Breakfast) |
| 7. Landmark Americana (Monday Dinner) | 14. SPARC: Office of the Chaplain, Rm 204 |
| | 15. Penn Museum of Archaeology and Anthropology |

CITY MAP

See Key below



This City Map shows some dinner locations, as well as sites around Philadelphia you may wish to visit. Some sites are labeled on the map and the rest may be found in the key below. For a more detailed map and addresses, please see the digital copy you received via e-mail.

1. Franklin Institute Science Museum
2. Philadelphia City Hall
3. Banana Leaf Malaysian Cuisine (Wednesday dinner)
4. Independence Mall (Independence Hall, the Liberty Bell, etc.)
5. Spruce St. Harbor Park
6. South Street

DINING ARRANGEMENTS

Instructions for Breakfast, Lunch & Dinner

Breakfast at Joe's Cafe:

Steinberg Hall-Dietrich Hall, 3624 Locust Walk, Ground Floor
Mon-Thurs opens at 8am; Fri opens at 8:30am

Lunch at 1920s Commons:

3800 Locust Walk
(cafeteria style; second floor)

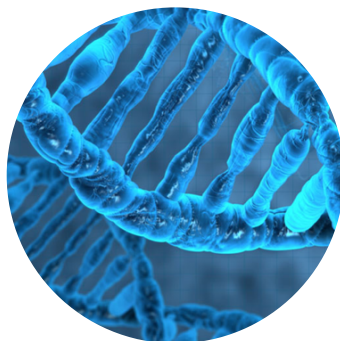
Dinner:

Monday: Landmark Americana at 6:00pm
3333 Market St, Philadelphia, PA 19104

Tuesday: New Deck Tavern: an Irish Pub and Restaurant at 6:00pm
3408 Sansom St, Philadelphia, PA 19104

Wednesday: Banana Leaf: Malaysian Cuisine at 6:30pm
1009 Arch St, Philadelphia, PA 19107

Thursday: TBD at 6:30pm



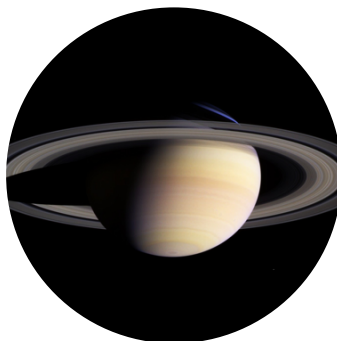
HOUSING & ACCOMMODATION

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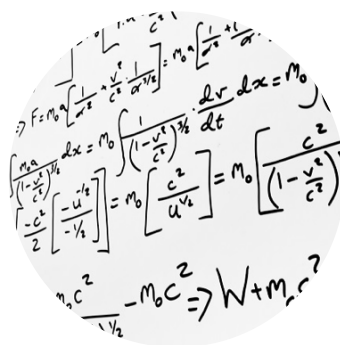
SPIRITUAL ARRANGEMENTS

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Mass times, other service times etc.

SPARC: University's Office of the Chaplain
opens at 10am each day
240 Houston Hall, 3417 Spruce St Philadelphia, PA 19104



The image shows a circular graphic with handwritten mathematical equations. The equations include the Lorentz factor $\gamma = \frac{1}{\sqrt{1 - \frac{v^2}{c^2}}}$, the relativistic mass formula $m = \gamma m_0$, and the equation $E = mc^2$. There are also some less standard notations like $\frac{m_0}{\sqrt{1 - \frac{v^2}{c^2}}}$ and $\frac{m_0}{\sqrt{1 - \frac{u^2}{c^2}}}$.



COLLEGIUM INSTITUTE
for Catholic Thought & Culture

Leadership Hall
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www.collegiuminstitute.org