PassionTalks 2014 BERKELEY

Saturday, August 23, 2014 Berkeley, California

WHAT ARE PASSION TALKS?

Passion Talks are short talks by Christian graduate students, academics, and professionals considering how their faith intersects with and impacts their work. Founded in 2012 by Christian graduate students from UC Berkeley, UC Santa Cruz, UC San Francisco, and Stanford, Passion Talks is a growing platform for discussing the work-faith connection in all disciplines.

SCHEDULE

9:00 - 9:30	Breakfast & Coffee
9:30 - 10:30	Welcome, Paul Riggins Keynote, Dr. Lara Buchak
10:30 - 12:00	Session I Talks
12:00 - 1:30	Lunch
1:30 - 2:30	Session II Talks
2:30 - 3:00	Break
3:00 - 4:00	Session III Talks
4:00 - 5:00	Post Mortem and Closing Remarks

Organizing Committee

General Chair: Paul Riggins, UC Berkeley Local Chair: Esther Cho, UC Berkeley Media Chair: Elliott Slaughter, Stanford Web Chair: Sherol Chen, UC Santa Cruz Program Chair: Kassa Betre, Stanford David Berger, UC Berkeley Wendy Quay, Stanford La Toya Tooles, Stanford TJ Tsai, UC Berkeley

Program Committee

Kassa Betre, Stanford Sherol Chen, UC Santa Cruz Paul Riggins, UC Berkeley TJ Tsai, UC Berkeley

Rebecca Wernis, UC Berkeley

DETAILED SCHEDULE

Session I Talks

Track 1 - Natural Theology

10:30 — 10:50: Impossibility (Elliott Slaughter)

10:50 — 11:10 : Mathematics and the Sovereignty of God (Will Johnson)

11:10 — 11:30 : In Awe of God's Creation at the Molecular Level: Molecule-making as a Form of Worship (-)

11:30 — 11:50 : Reflections on Adaboost (TJ Tsai)

Track 2 - Education, Technology and Society

10:30 — 10:50 : A Design Vision in South Africa (Ann Ku)

10:50 — 11:10 : Overturning the Desks in the Classroom (Jerome Fang)

11:10 — 11:30 : A Theology of Higher Education (-)

11:30 — 11:50 : How the Development of our Entertainment and Media Should Inform our Empathy (-)

Session II Talks

Track 1 - Natural Theology

1:30 — 1:50 : ELF/VLF Signals in Space (Justin Li)

1:50 — 2:10: Truth Cannot Contradict Truth (Paul Riggins)

2:10 — 2:30 : Emergent Space-time (Kassahun Betre)

Track 2 - Health and Environment

1:30 — 1:50 : The Impact of the Natural, Built, and Spiritual Environments on Human Health (Tomás León)

1:50 — 2:10 : The Scarcity of Life-giving Water: a Christian Perspective on Climate Change (Jeff Ho)

2:10 — 2:30 : Frugal Engineering for Global Health, Environmental Monitoring and Education (George Korir)

Session III Talks

Track 1 - What Makes us Human

3:00 — 3:20 : Renewing your Mind...and Brain (David Carreon)

3:20 — 3:40 : The Figure of the Home (Carl Olsen)

3:40 — 4:00 : What Does it Mean to be Human? (Wendy Quay)

Track 2 - Culture and Society

3:00 — 3:20 : Seeds of Hope in Fields of Despair (Steven Bell)

3:20 — 3:40 : Do You See What I See? : The Importance of Vision in My Intellectual, Professional and Faith Life (Jasmin Miller)

3:40-4:00: Rethinking Urban Informality (Caroline Abadeer)

ABSTRACTS AND BIOS

Keynote Speaker

Lara Buchak, Assistant Professor of Philosophy, UC Berkeley

Her primary research interests are in decision, game, and rational choice theory. Her book *Risk and Rationality* (OUP, 2013) concerns how an individual ought to take risk into account when making decisions. It vindicates the ordinary decision-maker from the point of view of even ideal rationality. She also has research interests in the philosophy of religion and in epistemology. Some topics she has written on include the relationship between assigning probability to a hypothesis and believing that hypothesis outright; the conditions under which one ought to stop looking for more evidence and make a decision; and the nature of faith, both in the religious and the more mundane sense.

Session I Talks Track 1 - Natural Theology

Impossibility (Elliott Slaughter)

Abstract: What do we know of limits to knowledge? In the book of Job, God issues a challenge, "Will the one who contends with the Almighty correct him?" (40:2), concluding the book with a tour de force which leaves us in awe of His power but no more the wiser with regard to our original question. In this talk, I define impossibility theory to be to the formal study of impossible problems, of questions we can formally demonstrate we cannot answer. I consider computability theory as an example of an impossibility result from Computer Science and consider how this result impacts the daily lives of researchers in the field.

Bio: Elliott Slaughter is a Ph.D. student studying Computer Science at Stanford advised by Alex Aiken, with research interests spanning programming languages, compilers, and parallel and distributed computing. His most recent project, Legion, is a parallel programming system for machines ranging from desktops to supercomputers.

Mathematics and the Sovereignty of God (Will Johnson)

Abstract: For millennia, poets and scientists have glorified God by contemplating His creative work in the natural world. Can I do the same as a pure mathematician? As Christians, we believe that the beauty, complexity, and structure of the natural world point to the God who created the universe. The same beauty and complexity seem to be present within the mathematical world. I would like to attribute this to God, but the logical inevitability of mathematics seems to present an obstacle. We Christians sometimes picture God as a fantasy writer, able to do whatever He wishes with the world, within the limits of logic. This would seem to give God no authority over mathematics, though. How then could He be responsible for the structure and beauty seen in mathematics?

As a Christian mathematician, this philosophical issue matters to me. Is what I study created by God? Can I pray for conjectures to be true? Is God bound by logic, or is He above it? Somewhat surprisingly, certain results from mathematical logic yield

ways in which the laws of logic can be more flexible and variable than one would otherwise expect. I would argue that these results suggest that God can, in fact, influence and create mathematics. I will describe a specific way in which this might happen.

Bio: I am a fourth-year mathematics graduate student at UC Berkeley, specializing in model theory, one of the branches of mathematical logic. I am interested in the applications of model theory to other branches of mathematics, particularly algebraic geometry and number theory. I studied computer science and mathematics at the University of Washington as an undergraduate, before entering the PhD program at Berkeley.

In Awe of God's Creation at the Molecular Level: Molecule-making as a Form of Worship (-)

Abstract: Despite being a rigorous science, the discipline of organic chemistry is also a highly creative pursuit and in ways finds common ground with the arts. Naturally occurring small molecule compounds have long inspired scientists by their intricate architectures and medicinal properties and research in their synthesis is important for investigations of their therapeutic potential. I will provide a concise overview of what gets scientists excited about organic chemistry and discuss how the practice of chemistry, like music, can be an act of worshipping God.

Reflections on Adaboost (TJ Tsai)

Abstract: Adaboost is considered to be one of the best out-of-the-box machine learning algorithms. In this talk, I will examine some of the reasons why this algorithm performs so well, and how those reasons reflect principles of the Christian faith.

Bio: TJ is a fourth year PhD student in the electrical engineering and computer science department at UC Berkeley. He does research at the intersection of audio signal processing and machine learning.

Session I Talks Track 2 - Education, Technology and Society

A Design Vision in South Africa (Ann Ku)

Abstract: In November 2013, I went to South Africa with a Christian business consulting team, and God answered my prayers for life direction in a powerful way. Through this trip, God provided me with a vision for my life work as a User Experience Designer that integrates my faith, design skills, and serving others in need. I now realize the power of UX Design and technology to provide a voice for causes and organizations around the world. This vision has also led me to my current company, a Christian for-profit web agency located in an underprivileged neighborhood in San Francisco.

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Bio: After graduating from Stanford (M.A, B.A., Psychology), I spent 15 years as a User Experience Designer in tech companies including Hotwire, PayPal, and 3Com. Currently, I lead UX Design at Dayspring Technologies, a San Francisco web design agency that was founded by Christians to serve God and others through business.

Overturning the Desks in the Classroom (Jerome Fang)

Abstract: In a culture that prizes achievement and success above all else, college can seem like a cutthroat competition to be the best at everything, regardless of the cost. As believers in academia, we have a unique opportunity to counter this trend by demonstrating Christ-like love and humility as we interact with students. In this talk, I will share my experiences as an astronomy and physics lecturer and the influence my faith has had on how I encourage my students to grow, not just intellectually, but also on a more personal level.

Bio: I am an astronomy PhD student at UCSC, and I investigate how galaxies change over time using large observational datasets. After I graduate, I plan to become a college instructor. I have had the opportunity to teach both astronomy and physics courses at UCSC, and the experience has been incredibly rewarding. Since becoming a believer, I have sought to cultivate a grace-filled classroom culture that encourages students to learn without succumbing to the "rat race" mindset that pervades much of academia.

A Theology of Higher Education (-)

Abstract: With its rising costs, increasingly competitive career paths, participation in systemic inequality, and pressures to focus on utility and commercialization, what does working in the Academy have to do with following Christ? In addition to covering some of the recent thinking on the role of faith in the University, I'll offer some stories from my own experience that have shaped how I go about my research and teaching. I'll propose some theological frameworks that have helped me at these early stages of my career that might be useful for others who serve Christ for a time in an academic setting.

How the Development of our Entertainment and Media should Inform our Empathy (-)

Abstract: This talk focuses on three aspects of development in the entertainment industry, (1) our individual validity and identity as creators and developers, (2) the importance of diversity and the acknowledgement of validity in the people we work alongside, (3) how our attempts to be understood through media demonstrates our need for empathy in others. In particular, this talk will explain the personal challenges of identity and diversity as a computer scientist, software engineer, and developer within the video game industry. The three parts, in summary, are validity, diversity, and empathy. First, the talk will look at conversations around the validity of minorities and the underprivileged. Second, the talk will acknowledge the neglect and importance of diversity in our entertainment industry and media, specifically, video games. Despite past injustices, it concludes that the underrepresented are not seeking revenge or control, but equality, which comes through empathy.

Bio: I'm working towards my PhD in Computer Science, specifically Artificial Intelligence in interactive experiences, digital entertainment, and video games. My work is focused on formal models of storytelling and how variations based off of supplementary changes can hold ideological significance.

Session II Talks Track 1 - Natural Theology

ELF/VLF Signals in Space (Justin Li)

Abstract: While most matter on Earth can be classified as a solid, liquid, or gas, the vast majority of the universe is composed of plasma. The transition from the neutral atmosphere to outer space takes place over a number of different layers with unique plasma compositions and behavior. In a region called the magnetosphere, the plasma is dominated by the effect of the Earth's magnetic field and contains an abundance of fascinating natural phenomenon. While satellites are now available to make in-situ measurements, early work used radio transmitters and receivers in the extremely and very low frequencies to make measurements of plasma characteristics and to observe wave-particle observations. Many nonlinear phenomenon remain poorly understood, and further study continues to this day. More personally, I will talk about the challenges and struggles with trying to understand how pure scientific research in a fairly abstract field can glorify and serve God.

Bio: Justin is a fourth year PhD student in the Electrical Engineering Department at Stanford University. His research as a graduate student in the Very Low Frequency Research Group focuses on the experimental study of nonlinear wave-particle interactions in the magnetosphere using data from a ground-based ELF/VLF transmitter.

Truth Cannot Contradict Truth (Paul Riggins)

Abstract: As a Christian and a physicist, I am sometimes a controversial person in two worlds: in the academy because I believe the Bible is true and Jesus Christ is Lord, and in the church because I think evolution and the big bang probably happened. Many in both worlds see my theology and my physics as incompatible, but I have come to see them as complementary pursuits of different kinds of truth---and "truth cannot contradict truth" (Pope Leo XIII). I will discuss and illustrate the nature of this complementarity, and also explore ways in which my theology and my physics inform each other. Among other things, I will address miracles, spiritual warfare, prayer, Genesis, God's sovereignty, and the multiverse, how each can be understood as a simultaneously natural and supernatural phenomenon, and how that affects my daily life as a Christian physicist.

Bio: I am currently beginning my second year as a physics PhD student at UC Berkeley. My research focuses on high energy theory and phenomenology: I am interested in dark matter and dark energy, black holes, multiple universes, new particles, quantum gravity, string theory, and other things that help us understand

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new physics and the fundamental make-up of the natural world.

I grew up in the church, and first decided to study high energy theoretical physics when I was in junior high. The past decade or so has seen the fulfillment of that dream, along with countless discussions and debates with others and myself as I have struggled to understand and reconcile Biblical truth and scientific discovery. I praise God that today I am more convinced than ever of the Gospel of Jesus Christ and the truth of the Bible, and that now I get to work full time studying and teaching the wonders of His Creation.

Emergent Space-time (Kassahun Betre)

Abstract: Emergence in physics is a phenomena by which a large collection microscopic objects begin to exhibit new properties and behaviors that are not seen in the individual components. An example would be a common fridge magnet where spins of unpaired electrons in the metal collectively align themselves and give rise to magnetic properties. In this talk, I present the idea of emergent space-time, where space-time emerges as a collective behavior of more fundamental objects called D0-branes. Beyond physics, emergence is taken by some to give fully materialistic account of phenomena such as life in biology and psychology in neuroscience. I will discuss the larger philosophical and theological implications of emergence for orthodox Christianity. I will argue that materialistic explanation of the mind does not contradict traditional Christian doctrines.

Bio: I am completing my PhD in theoretical particle physics at Stanford University. I am currently working on a research project that investigating one particular realization of emergent space-time. The most intriguing and most important knowledge I seek is the knowledge of God so that I may love him more. I am firmly convinced that God and the universe he created want us humans to know them.

Session II Talks

Track 2 - Health and Environment

The Impact of the Natural, Built, and Spiritual Environments on Human Health (Tomás León)

Abstract: Health is defined by the WHO as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." This is a reasonably comprehensive definition to cover one of our most valuable assets (if not the most). Our health is significantly impacted by internal and external environments: the natural environment, which includes air pollution and water quality; the built environment, which includes access to public transportation and available green space; and the spiritual environment, which includes personal beliefs and religious community. Each of these has effects on multiple facets of our health. In this talk, I will discuss this paradigm for viewing our own well-being and cite demonstrative examples from Scripture while describing how my spiritual and academic journeys have led me to this perspective.

Bio: Tomás is a Ph.D. student in Environmental Health Sciences at UC-Berkeley. He completed his B.S. in Environmental Engineering at Georgia Tech and his M.S. in Global Health & Environment at UC-Berkeley. His past and present research focuses include indicator organisms in natural waters in the Americas, environmental factors influencing parasite transmission in Southeast Asia, and development of sustainable transit and the clean energy economy in the American South. He is preparing to embark on a Fulbright to northeast Thailand for a year to study how changes in aquaculture are influencing the transmission cycle of Opisthorchis viverrini, a carcinogenic liver fluke parasite. He has also worked on exposure assessment with the Centers for Disease Control and Prevention and with environmental nonprofits in the Atlanta area. He has sought to understand the impacts of "environments" ever since he was a kid.

The Scarcity of Life-giving Water: a Christian Perspective on Climate Change (Jeff Ho)

Abstract: Millions of Americans are evangelical Christians, and their belief in the science of global warming is well below the national average. This mistrust of scientific evidence persists despite overwhelming scientific consensus that man-made global warming is real, and that man-made global warming will lead to substantial harm for livelihoods, public health, and the environment. This talk outlines the arguments for climate change from an evangelical Christian perspective to lay bare the compatibility of man-made global warming with conservative and Christian values. Specifically, the talk refutes the ideas that mitigation measures must entail larger government, and allays other common doubts about man-made global warming. I argue instead that biblical values of justice and of helping the poor should be at the center of why Christians accept man-made global warming, and why evangelical Christians should use knowledge of the impacts of such warming to advocate for government action to mitigate against and adapt to man-made global warming. Using an example from my own research exploring the impacts of global warming on water scarcity in Sub-Saharan Africa, I conclude the talk by discussing how my own evangelical Christian views can motivate action in addressing the problem of man-made global warming.

Bio: I am a fourth-year PhD student in Environmental Engineering at Stanford University. My dissertation focuses on quantifying some of the impacts of future climate change on water resources. I look at two specific environments where water quality plays a big role: in the aquatic ecology of freshwater lakes and in the water fetching habits of poor households in Sub-Saharan Africa.

In my lifetime, the world's leading scientists predict that we will face tremendous challenges due to climate change, of which a disproportionate amount will fall on the poorest of the poor. I hope my work can contribute towards designing mitigation and adaption strategies against such impacts, and lead to greater management of the future risks of climate change.

My work is strongly motivated by my faith. God has opened my eyes to knowledge that climate change disproportionately impacts the poorest and most vulnerable of our Earthly brothers and sisters and has kept this fact close to my heart as I pursue research and policy opportunities during my PhD.

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Frugal engineering for global health, environmental monitoring and education (George Korir)

Abstract: Small volume fluid handling in single and multiphase microfluidics provides a promising strategy for efficient biochemical assays, low-cost point-of-care diagnostics and science kits for educational applications. A significant barrier towards low-cost field deployment of programmable microfluidics is that incorporating multiple pumps, mixers and discrete valve based control of nanoliter droplets in an integrated, programmable manner without external bulky components has remained elusive. Here, a self-contained, hand-crank driven, multiplex and robust programmable microfluidic platform, combining the idea of punch card programming with arbitrary microfluidic control is presented. A paper tape encodes information as a series of punched holes. A mechanical reader/actuator reads these tapes and correspondingly executes a series of operations onto a microfluidic chip coupled to the platform in a plug-and-play fashion. Enabled by the complexity of codes that can be represented by a series of holes in punched paper tapes, we demonstrate independent control of 15 on-chip pumps with enhanced mixing, on-off valves and novel on-demand impact based droplet generators. A water quality assay utilizing colorimetric assay for pH, ammonia, nitrites and nitrates is presented as an example. With its portable and robust design, low-cost and ease-of-use, we envision punch card programmable microfluidics will bring complex control of microfluidic chips into field-based applications in low-resource settings and children around the world thus bringing microfluidics and low-Reynolds number hydrodynamics to everyday classrooms.

Bio: Born and raised in Nakuru, Kenya, George is a graduate student at Stanford University with a passion for developing medical technologies especially for low resource settings. Inspired by his mother who was a nurse, he often found great joy in performing first-aid on his siblings whenever they would get hurt while playing out in the field when he was younger. Discovering his love and aptitude for the sciences and hoping to find ways to help improve health outcomes for his countrymen, George left Kenya to study engineering at Harvey Mudd College. Prior to coming to Stanford, he got additional training at Johns Hopkins as a masters student in biomedical engineering, the World Health Organization as part of its technology and facilities team, as a research engineer in two medical device firms, and as a lab technologist at the Massachusetts General Hospital cancer center and the center for engineering in medicine. Currently in his third year in a joint program of a masters in medicine and bioengineering phd, George is developing a technology platform that he invented with his advisor that can potentially be used for medical diagnostics, monitoring the environment and science education, for extremely resource limited settings. He sees his work as a way to contribute towards breaking down barriers and helping get access to potentially life-saving technologies to people who have been traditionally underserved all over the world. Outside of the lab, he enjoys tending to crops, trail running and exploring the great outdoors.

Session III Talks Track 1 - What Makes us Human

Renewing your Mind...and Brain (David Carreon)

Abstract: Paul tells us to be transformed by the renewing of our mind. But how? Our frameworks for "doing the right thing" have long ignored the pragmatic questions of *how* to go about changing. I will bring together the latest thinking on the renewal of the mind, tying together the practical perspectives on Spiritual Formation (from Dallas Willard and John Ortberg), with virtue ethics in the New Testament (from NT Wright), and new discoveries in neuroscience which form the substrate and embodiment of these changes.

Bio: I'm presently a resident psychiatrist at Stanford. I've worked in a neuroscience lab doing neuro-modulation (shocking my and other brains with an electromagnet), psychiatric assessment and electrophysiology. I've also long been interested in philosophy and psychology.

The Figure of the Home (Carl Olsen)

Abstract: My recent work has revolved around the figure of the home in the Old Norse sagas, in particular with regards to perceived threats to the permeability of the home and to the interests of the aristocratic owner of the space of the home. Exploring this topic in the literature of Medieval Iceland has made me more aware of just how historically situated and unique our own invisibly normative understanding of the home is, and I've been interested in thinking about how the home and the idea of the home structure our understanding of ourselves and of others. Following my overview of my research, I will look into some of the ways thinking critically about the idea of the home can inform our engagement with both our personal history and our culture more generally. What hang-ups do we inherit with conception of the home that we are born into? What do we learn about ourselves and our culture from our implicit understanding of space, and what would a positive, grace-filled transformation of this look like?

Bio: I filed my dissertation on the Old Norse shield poems back in 2009 and taught for the next few years in the Scandinavian department at Berkeley. From 2012-2013 I was a Visiting Professor in Scandinavian Studies at Gustavus Adolphus college, and I am currently a freelance translator, working on a 700 page Swedish book on the theology of the body. An article of mine on the figure of the home in Old Norse literature will be coming out in volume 3 of a history of Scandinavian literature.

What Does it Mean to be Human? (Wendy Quay)

Abstract: One of the biggest questions of life is "Who am I?" In the university, there are various models of what it means to be human, but most would deny or ignore the notion that our humanity is in any way dependent upon God. Athanasius saw our humanity as being intrinsically tied to our connection with God, and our turning away from God in the Fall as our "un-making". I will talk about Athanasius' theology of what it means to be human, and its implications for us both in our daily lives and specifically as

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academics.

Bio: I am employed by InterVarsity Graduate & Faculty Ministries as the professional advisor for Stanford InterVarsity Graduate Christian Fellowship. I obtained my Masters in Systematic Theology at Aberdeen University in 2010. Prior to that, I obtained a Bachelor of Theology (Oxford University), the Oxford Certificate of Christian Apologetics from Wycliffe Hall, Oxford, and degrees in Law and Science at the University of Melbourne.

Session III Talks Track 2 - Culture and Society

Seeds of Hope in Fields of Despair (Steven Bell)

Abstract: By any metric, graduate students in California are some of the most blessed people anywhere - we get paid to learn incredible things and work with amazing people. Yet the grad student life as chronicled by PHD Comics is one of eternal pain and misery, and many of us feel tired, disillusioned, and depressed. The first part of my talk will answer the question, "Why is there so much despair in grad school?" I will enumerate some of the forces behind this negativity, drawing on both personal experience and published research. In the second half of the talk, I'll discuss these pain points in light of scripture, and explore how we can understand and manage them as Christians. I'll conclude with a challenge to confront the despair and to instead sow seeds of hope in academia.

Bio: Steven is a 4th-year PhD student at Stanford, doing the Electrical Engineering thing. He is working on a project to build a programmable camera, which is taking him on a circuitous path through the fields of image processing, computer architecture, and compiler research. Along the way he has experienced more than a few moments of disillusionment, disappointment, and despair, but is slowly finding reasons to have hope and joy during the journey.

Do You See What I See? : The Importance of Vision in My Intellectual, Professional and Faith Life (Jasmin Miller)

Abstract: "Do you see what I see?" is a question that addresses the importance of the concept of vision in my research as a medieval literature scholar and my faith life. For my research, the question frames my relationship to the material that I study: religious writing produced in England between the thirteenth and fourteenth centuries. Because much of this writing includes visions of God, heaven, and angels, among other supernatural phenomenon, the question captures the challenge of approaching unbelievable personal accounts experienced by nearly anonymous people from a very different cultural context, who lived over 700 years ago. My talk will explain some ways I attempt to breach this gap as a literary scholar and as a Christian.

For my faith life, the question frames the relationship that God has with me, especially when he asks me to believe in the as-yet-unseen things he is doing in my

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own life, but also in what he's been doing throughout the ages. I believe that God has been calling people into relationship with him in varied, and thus variously beautiful ways, whether it's the visionaries from long ago; me, as a scholar of medieval writing, belief and culture; or my students, who may or may not know him very much at all (yet).

Bio: I am a Ph. D. candidate in the English Department and Medieval Studies Program at Berkeley. I'm currently starting my dissertation on the medieval concept of "discretion" in English religious prose texts of the 13th and 14th centuries.

Rethinking Urban Informality (Caroline Abadeer)

Abstract: A thriving informal economy, which comprises criminal, illegal, unregulated, or nonmonetary market exchanges and activities, exists in all countries, both developing and developed. In some places—such as Pakistan—informal work contributes upwards of 80% of GDP. Also, according to UN estimates, about one-third of the urban population in developing countries—nearly one billion people—lives in informal residential communities (slums). However, the phenomenon of informality more generally, and slum dwelling as one of its more apparent manifestations, remains relatively understudied in political science My presentation will therefore consider the research question of what factors shape government policy towards the informal sector and drive cycles of toleration and repression. I will also describe how the intervention of non-governmental organizations (NGOs)—and especially, faith-based efforts—has helped to empower the zabbaleen (informal trash collector) communities of Cairo, Egypt.

Bio: Caroline Abadeer is a rising second year in the Ph.D. program in Political Science at Stanford University, and holds a B.A. from the University of Minnesota in Political Science and Global Studies (2011). Caroline has spent a lot of time studying the political economy of development, Islamist movements, and Arabic. As a Fulbright scholar in 2011-2012, Caroline conducted research on democratization in Morocco in the post-Arab Spring period. In her spare time, she also writes and edits articles on Middle East affairs for the online magazine Muftah. An aspiring scholar of North African politics, Caroline's current research focuses on questions of government policy towards the informal sector in developing countries.