

CURRICULUM VITAE SOHEIL SHAYEGH

PERSONAL DATA

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ORCID: 0000-0002-8960-8244

EDUCATION:

PhD, Georgia Institute of Technology (Georgia Tech), Atlanta, USA, 2014
Major: Industrial Engineering, Economic Decision Analysis
Minor: Statistics
Dissertation Title: Developing an Adaptive Stochastic Integrated Model for Climate Change
Supervisor: Professor Valerie Thomas

Master of Engineering, American University of Armenia, Yerevan, Armenia, 2007
Major: Industrial and Systems Engineering
Thesis Title: Environmental Impact Assessment of Copper Production: A Case Study on Alaverdi Copper Factory in Armenia

Master of Science, AmirKabir University of Technology, Tehran, Iran, 2005
Major: Construction Engineering & Management
Thesis Title: International contracts for infrastructure development projects in Iran

Bachelor of Science, Isfahan University of Technology, Isfahan, Iran, 2002
Major: Civil Engineering

FELLOWSHIPS:

European Commission Marie Skłodowska-Curie Fellowship, , 2016-2018
Title: Developing a robust decision-making framework for climate change policy under uncertainty
Evaluation criteria: Total score of 90.40% (Threshold: 70/100.00)
Supervisor: Professor Massimo Tavoni
Location: Fondazione Eni Enrico Mattei, Milan, Italy

Georgia Tech Science, Technology, and Innovation Policy Fellowship (STIP), 2014
Title: Assessing the Adoption of Electric Vehicles in Second-tier Metropolitan Areas in Georgia
Evaluation criteria: Selected among top 4 PhD students at Georgia Tech
Supervisor: Professor Jan Youtie
Location: Enterprise Innovation Institute, Georgia Tech, Atlanta, USA

Georgia Tech Sam Nunn Security Fellowship Program, 2011-2012
Title: Developing a Policy Framework for Autonomous Vehicles Deployment in Georgia
Evaluation criteria: Selected among top 10 PhD students at Georgia Tech
Supervisor: Professor Seymour Goodman
Location: Sam Nunn School of International Affairs, Georgia Tech, Atlanta, USA

U.S. Congressional Fellowship, 2011
Evaluation criteria: Selected as the only PhD student from Georgia Tech
Title: Drafting legislation on electronic waste recycling
Location: Office of Representative Rush Holt, Washington DC, USA

ACADEMIC APPOINTMENTS:**Scientist** (equivalent to **Associate Professor**), 2019 – now**Institute:** Centro Euro-Mediterraneo sui Cambiamenti Climatic (CMCC) and RFF-CMCC European Institute on Economics and the Environments (EIEE), Milan, Italy**Responsibilities:** *Coordinating research projects, Supervising junior researchers and students***Supervisor:** Professor Massimo Tavoni**Postdoc Research Fellow**, 2018-2019**Institute:** Bocconi University, Milan, Italy**Responsibilities:** *Conducting expert elicitation for evaluating negative emission technologies***Supervisor:** Professor Valentina Bosetti**Marie Skłodowska-Curie Fellow**, 2016-2018**Institute:** Fondazione Eni Enrico Mattei, Milan, Italy**Responsibilities:** *Developing a Robust Climate Change Policymaking Decision Tool***Supervisor:** Professor Massimo Tavoni**Postdoc Research Fellow**, 2014-2016**Institute:** Carnegie Institution for Science, Stanford University, USA**Responsibilities:** *Developing Integrated Assessment Models of Climate Change and Decision Tools for Climate Change Policy Making under Uncertainty***Supervisor:** Professor Ken Caldeira**Research Assistant**, 2013-2014**Institute:** Georgia Tech, Atlanta, USA**Responsibilities:** *Developing a statistical model for price adjustment policies***Supervisor:** Professor Baabak Ashuri**Junior Researcher**, 2010**Institute:** INSEAD Business School, Abu Dhabi, UAE**Responsibilities:** *Developing an energy profile model of GCC countries***Supervisor:** Professor Benjamin Warr**Research Assistant**, 2009-2012**Institute:** Georgia Tech, Atlanta, USA**Responsibilities:** *Developing a macroeconomic model for Climate Change policy evaluation***Supervisor:** Professor Valerie Thomas**TEACHING APPOINTMENTS:****Lecturer**, 2014**Course:** Engineering Economy**Institute:** Georgia Tech, Atlanta, USA**Responsibilities:** *Teaching, supervising, conducting exams, and evaluating students' performance***Level:** Bachelor's degree**Number of students:** 82**Teaching Assistant**, 2011-2013**Course:** Energy Technology and Policy**Institute:** Georgia Tech, Atlanta, USA**Responsibilities:** *Teaching the technical section of the course, conducting exams, and evaluating students' performance***Level:** Master's and PhD degree**Number of students:** 25/year**Lecturer**, 2008**Course:** Probability and Statistics**Institute:** EURASIA International University, Yerevan, Armenia**Responsibilities:** *Teaching, supervising, conducting exams, and evaluating students' performance***Level:** Bachelor's degree**Number of students:** 60

ORGANIZATIONAL ACTIVITIES (Institutional):**Executive Committee Member**, 2022 - now**Title:** Diversity, Equity, and Inclusion Initiative (DEI)**Institute:** European Association of Environmental and Resource Economists (EAERE)**Executive Committee Member**, 2020 - now**Title:** Climate Health Initiative (CHIA)**Institute:** RFF-CMCC European Institute on Economics and the Environments (EIEE) and Bocconi University**ORGANIZATIONAL ACTIVITIES (Projects):****Scientific coordinator**, 2023-2027**Project:** UPTAKE - *Bridging current knowledge gaps to enable the UPTAKE of carbon dioxide removal methods***Funder:** European Union's Horizon Europe Framework**Responsibilities:** *Coordinating the research activities within the project***Number of involved research institutes:** 21**Evaluation score:** Total score of 13.50 (Threshold: 10)**Work Package leader**, 2024-2027**Project:** Co-CREATE - *Conditions for Responsible Research of SRM – Analysis, Co-creation, and Ethos***Funder:** European Union's Horizon Europe Framework**Responsibilities:** *Coordinating a work package on Risk Assessment Frameworks and Governance Analogues Analysis***Number of involved research institutes:** 14**Evaluation score:** Total score of 13.50 (Threshold: 10)**Work Package leader**, 2021-2025**Project:** LOCALISED - *Localised decarbonisation pathways for citizens, local administrations and businesses to inform and support mitigation and adaptation action***Funder:** European Union's Horizon 2020 Framework**Responsibilities:** *Coordinating a work package on developing end-user solutions for regional businesses and investors***Number of involved research institutes:** 12**Evaluation score:** Total score of 14.5 (Threshold: 10)**Task leader**, 2019-2023**Project:** NAVIGATE - *Next Generation of Advanced Integrated Assessment Modelling to Support Climate Policy Making***Funder:** European Union's Horizon 2020 Framework**Responsibilities:** *Coordinating a task on endogenizing population dynamics in integrated assessment models of climate change and economy***Number of involved research institutes:** 17**Evaluation score:** Total score of 14.0 (Threshold: 10)**Research Coordinator**, 2012-2014**Project:** ESW – *Engineers for a Sustainable World***Funder:** Atlanta International Airport**Responsibilities:** *Coordinating a project on food waste management at the airport***Number of involved research institutes:** 3**Research Coordinator**, 2008-2009**Project:** *Developing, Customizing, and Marketing for UNISHOP Software outside Armenia***Funder:** Enterprise Incubator Foundation (EIF), Armenia**Responsibilities:** *Coordinating the research activities between the Eurasia International University and Unisystems software developing company.*

ORGANIZATIONAL ACTIVITIES (Conferences):**Workshop organizer, 2022****Title:** *Climate change risk assessment for EU businesses***Institute:** Assolombarda, Milan, Italy**Number of attendees:** 15**Seminar organizer, 2018****Title:** *Optimal Carbon Price under Climate Risk***Institute:** Fondazione Enrico Mattei (FEEM), Milan, Italy**Number of attendees:** 150**Thematic session organizer, 2018****Title:** *Endogenous population dynamics and climate change***Institute:** World Congress of Environmental and Resource Economists (WCERE 2018)**Number of attendees:** 50**Workshop organizer, 2016****Title:** *Modeling climate engineering***Institute:** Fondazione Enrico Mattei (FEEM), Milan, Italy**Number of attendees:** 30**ORGANIZATIONAL ACTIVITIES (Editorial duties):****Associate Editor, 2020 - now****Journal:** *Frontiers in Climate - Negative Emission Technologies*<https://www.frontiersin.org/journals/climate/sections/negative-emission-technologies>**Invited reviewer, 2016 - now****Journal:** *Science Advances, International Journal of Climatology, Environmental and Resource Economics, Energy Research & Social Science, Journal of Population Economics, Journal of the Association of Environmental and Resource Economists, Nature Communications, BMJ Open, Journal of Cleaner Production, International Journal of Biometeorology, Climate and Development***ORGANIZATIONAL ACTIVITIES (Presentations):****Presenter, 41st International Energy Workshop (IEW2023), 2023****Title:** *Energy Security and Climate Policy Implications of Carbon Dioxide Removal***Location:** Colorado School of Mines, USA**Presenter, 15th Integrated Assessment Modeling Consortium (IAMC) Annual Meeting, 2022****Title:** *Shared socioeconomic pathways and their implications for the future of racial inequality***Location:** (Online) College Park, USA**Presenter, INFORMS Annual Meeting, 2021****Title:** *How to transition to green economy: Green jobs and Green capital***Location:** (Online) Anaheim, USA**Presenter, 26th Annual Conference of the European Association of Environmental and Resource Economists (EAERE), 2021****Title:** *Lessons from the past: how health crises impede economic growth***Location:** Online**Presenter, 25th Annual Conference of the European Association of Environmental and Resource Economists (EAERE), 2020****Title:** *Intergenerational wealth transfer and inequality***Location:** (Online) Berlin, Germany**Presenter, Scenarios Forum 2019: Forum on scenarios for climate and societal futures, 2019****Title:** *Climate-induced migration: applications and enhancements of the SSP framework***Location:** Denver, USA**Presenter, International Workshop on Migration and the Environment, 2018****Title:** *International migration and climate change*

- Location:** Zurich, Switzerland
- Presenter,** 6th World Congress of Environmental and Resource Economists (WCERE 2018), 2018
Title: *Solar Geoengineering and Learning*
Location: Gothenburg, Sweden
- Presenter,** 2nd international workshop on the economics of climate change and sustainability, 2018
Title: *Climate change impact on international migration*
Location: Bertinoro, Italy
- Presenter,** 10th Integrated Assessment Consortium (IAMC) Annual Meeting, 2017
Title: *Climate change induced migration and inequality*
Location: Recife, Brazil
- Presenter,** 1st international workshop on the economics of climate change and sustainability, 2017
Title: *Carbon Dioxide Removal and Outgassing from the Ocean*
Location: Rimini, Italy
- Presenter,** Japan-America Joint Geoscience Union Meeting (JpGU-AGU Joint Meeting), 2017
Title: *Climate change policy making under uncertainty: extreme events and public health*
Location: Chiba, Japan
- Presenter,** NFORMS Annual Meeting, 2017
Title: *Promoting Clean Technologies Through Consumption and Production Subsidies*
Location: Houston, USA

ENGINEERING EXPERIENCES:

- Construction Quality Assurance Manager,** 2007 - 2008
Company: HADISH Engineering Company
Project: Thika Hydropower plant, Thika, Kenya
- CEO and Engineering Manager,** 2005 - 2006
Company: Palar Paya Espadana
Project: Urban green space development project, Esfahan, Iran
- Structural Engineer,** 2005 - 2006
Company: ADAPT corporation
Project: *Designing post-tensioned concrete building, Dubai, UAE*

JOURNAL PUBLICATIONS:

1. Shayegh, S., Reissl, S., Roshan E., & Calcaterra, M. (2023). An assessment of different transition pathways to a green global economy. *nature communications earth & environment* (doi: [10.1038/s43247-023-01109-5](https://doi.org/10.1038/s43247-023-01109-5)).
 2. Malpede, M., Falcetta, G., & Shayegh, S. (2023). Mosquitoes and Potatoes: How Local Climatic Conditions Impede Development. *Environmental and Resource Economics* (doi: [10.1007/s10640-023-00818-x](https://doi.org/10.1007/s10640-023-00818-x)).
 3. Dasgupta, S., Emmerling, J., & Shayegh, S. (2023). Inequality and growth impacts of climate change—insights from South Africa. *Environmental Research Letters* (doi: [10.1088/1748-9326/ad0448](https://doi.org/10.1088/1748-9326/ad0448)).
- Shayegh, S., Andreu-Perez, J., Akoth, C.,..., Trentini, F., Melegaro, A. (2023). Prioritizing COVID-19 vaccine allocation in resource poor settings: Towards an Artificial Intelligence-enabled and Geospatial-assisted decision support framework. *PLoS ONE* (doi: [10.1371/journal.pone.0275037](https://doi.org/10.1371/journal.pone.0275037)).
4. Herman, K.S., Kim, Y.J., Shayegh, S., & Xiang, J. (2023). A critical review of green growth indicators in G7 economies from 1990 to 2019. *Sustainability Science* (doi: [10.1007/s11625-023-01397-y](https://doi.org/10.1007/s11625-023-01397-y)).
 5. Shayegh, S. (2023). The prospect of direct air capture for energy security and climate stability. *Frontiers in Chemical Engineering*

- (doi: [10.3389/fceng.2023.1140953](https://doi.org/10.3389/fceng.2023.1140953)).
6. Malpede, M., & Shayegh, S. (2022). Staying home saves lives, really!. *Letters in spatial and resource sciences* (doi: [10.1007/s12076-022-00316-6](https://doi.org/10.1007/s12076-022-00316-6)).
 7. Shayegh, S. & Dasgupta, S. (2022). Climate change, labour availability and the future of gender inequality in South Africa. *Climate and Development* (doi: [10.1080/17565529.2022.2074349](https://doi.org/10.1080/17565529.2022.2074349)).
 8. Shayegh, S., Emmerling J., & Tavoni M. (2022). International Migration Projections across Skill Levels in the Shared Socioeconomic Pathways. *Sustainability* (doi: [10.3390/su14084757](https://doi.org/10.3390/su14084757)).
 9. Aldy, J. E., Felgenhauer, T., Pizer, W. A., Tavoni, M., Belaia, M., Borsuk, M. E., ... & Wiener, J. B. (2021). Social science research to inform solar geoengineering. *Science* (doi: [10.1126/science.abj6517](https://doi.org/10.1126/science.abj6517)).
 10. Shayegh, S., Bosetti V., & Tavoni M. (2021). Future Prospects of Direct Air Capture Technologies: Insights from an Expert Elicitation Survey. *Frontiers in Climate* (doi: [10.3389/fclim.2021.630893](https://doi.org/10.3389/fclim.2021.630893)).
 11. Shayegh, S., Manoussi V., & Dasgupta, S. (2021). Climate change and development in South Africa: The impact of rising temperatures on economic productivity and labor availability. *Climate and Development* (doi: [10.1080/17565529.2020.1857675](https://doi.org/10.1080/17565529.2020.1857675)).
 12. Shayegh, S. & Sanchez, D. L. (2021). Impact of market design on cost-effectiveness of renewable portfolio standards. *Renewable and Sustainable Energy Reviews*, 136. (doi: [10.1016/j.rser.2020.110397](https://doi.org/10.1016/j.rser.2020.110397)).
 13. Antonelli, C., Coromaldi, M., Dasgupta, S., Johannes, E., & Shayegh S. (2021). Climate impacts on nutrition and labor supply disentangled – an analysis for rural areas of Uganda. *Environment and Development Economics* (doi: [10.1088/1748-9326/ab0843](https://doi.org/10.1088/1748-9326/ab0843)).
 14. Shayegh, S. (2021) Climate Crunch Time. *Environmental Sciences and Ecology: Current Research (ESECR)* (doi: [10.54026/ESECR/1033](https://doi.org/10.54026/ESECR/1033)).
 15. Falchetta, G., Hammad A. T., & Shayegh, S. (2020). Planning universal accessibility to public healthcare in sub-Saharan Africa. *Proceedings of the National Academy of Sciences of the United States of America (PNAS)* (doi: [10.1073/pnas.2009172117](https://doi.org/10.1073/pnas.2009172117)).
 16. Casey, G., Shayegh, S., Moreno-Cruz, J., Bunzl, M., Galor, O., & Caldeira, K. (2019). The impact of climate change on fertility. *Environmental Research Letters*, 14(5), 054007 (doi: [10.1088/1748-9326/ab0843](https://doi.org/10.1088/1748-9326/ab0843)).
 17. Heutel, G., Moreno-Cruz, J., & Shayegh, S. (2018). Solar geoengineering, uncertainty, and the price of carbon. *Journal of Environmental Economics and Management*, 87, 24-41 (doi: [10.1016/j.jeem.2017.11.002](https://doi.org/10.1016/j.jeem.2017.11.002)).
 18. Shayegh, S. (2017). Outward migration may alter population dynamics and income inequality. *Nature Climate Change*, 7(11), 828-832 (doi: [10.1038/nclimate3420](https://doi.org/10.1038/nclimate3420)).
 19. Shayegh, S., Sanchez, D. L., & Caldeira, K. (2017). Evaluating relative benefits of different types of R&D for clean energy technologies. *Energy Policy*, 107, 532-538 (doi: [10.1016/j.enpol.2017.05.029](https://doi.org/10.1016/j.enpol.2017.05.029)).
 20. Shayegh, S., Moreno-Cruz, J., & Caldeira, K. (2016). Adapting to rates versus amounts of climate change: a case of adaptation to sea-level rise. *Environmental Research Letters*, 11(10), 104007 (doi: [10.1088/1748-9326/11/10/104007](https://doi.org/10.1088/1748-9326/11/10/104007)).

21. Heutel, G., Moreno-Cruz, J., & Shayegh, S. (2016). Climate tipping points and solar geoengineering. *Journal of Economic Behavior & Organization*, 132, 19-45
(doi: [10.1016/j.jebo.2016.07.002](https://doi.org/10.1016/j.jebo.2016.07.002)).
22. Ilbeigi, M., Ashuri, B., & Shayegh, S. (2016). Price adjustment clauses and submitted bid prices for major asphalt line items in highway projects. *Journal of Construction Engineering and Management*, 142(5), 04015103
(doi: [10.1061/\(ASCE\)CO.1943-7862.0001097](https://doi.org/10.1061/(ASCE)CO.1943-7862.0001097)).
23. Shayegh, S., & Thomas, V. M. (2015). Adaptive stochastic integrated assessment modeling of optimal greenhouse gas emission reductions. *Climatic change*, 128(1-2), 1-15
(doi: [10.1007/s10584-014-1300-3](https://doi.org/10.1007/s10584-014-1300-3)).

WORKING PAPERS:

1. Shayegh, S., & Zheng Y. (2022). *Intergenerational wealth inequality and transfer in shared socioeconomic pathways A case study of South Africa*.
Target journal: *Nature Climate Change*
Online repository: *Research Square*
(doi: [10.21203/rs.3.rs-1299984/v1](https://doi.org/10.21203/rs.3.rs-1299984/v1)).
2. Kelly, DL., Heutel, G., Moreno-Cruz, J., & Shayegh, S. (2021). *Solar Geoengineering, Learning, and Experimentation*.
Target journal: *Journal of the Association of Environmental and Resource Economists*
Online repository: *NBER Working Papers*
(doi: [10.3386/w28442](https://doi.org/10.3386/w28442)).
3. Shayegh, S., Crippa, F., & Dasgupta, S. (2020). *COVID-19 Impacts and Responses: The Role of the National Governments and International Organizations*.
Online repository: *SSRN Working Papers*
(doi: [10.2139/ssrn.3716100](https://doi.org/10.2139/ssrn.3716100))

Shayegh S., Sisco M., & Geffroy E. (2020). *Climate Concern and Policy Support among Early-Career Scientists in Europe*.
Online repository: *SSRN Working Papers*
(doi: [10.2139/ssrn.3540284](https://doi.org/10.2139/ssrn.3540284))
4. Shayegh S., & Herman K. (2019). *Earth and Health: Learning Across the Boundaries of Global Governance*.
Online repository: *SSRN Working Papers*
(doi: [10.2139/ssrn.3320433](https://doi.org/10.2139/ssrn.3320433))
5. Shayegh S. et al. (2018). *Recalculating the Social Cost of Carbon*.
Online repository: *SSRN Working Papers*
(doi: [10.2139/ssrn.3185991](https://doi.org/10.2139/ssrn.3185991))

BOOK PUBLICATIONS:

1. Shayegh, S., Heutel, G., & Moreno-Cruz, J. “Regulating Geoengineering: International Competition and Cooperation” in “**Climate Geoengineering: Science, Law and Governance**” Springer, 2021 (ISBN 978-3-030-72372-9).
2. Shayegh S. “The Role of Biofuels in Achieving a National Energy Independence Plan” in “**The Handbook of Bioenergy**”, Springer International Publishing, 2015 (ISBN 978-3-319-20091-0)
3. Shayegh S. “Environmental Impact Assessment of Copper Production: A Case Study on Alaverdi Copper Factory in Armenia”, VDM Verlag Publisher, 2008 (ISBN 978-3-639-09444-2)
4. Shayegh S. “Practicing Customer Relationship Management (CRM) System: A case on an Armenian Bank”, VDM Verlag Publisher, 2009 (ISBN 978-3-639-11412-6)

5. Sebt M. H. & Shayegh S. “BOT Contracts and their applications in Iran's infrastructure contracts” (in Farsi), Amirkabir University of Technology Publisher, 2006 (<http://www.aku-press.com/eBook.asp?M=6&Seq=487>)

POLICY COMMUNICATIONS:

1. “Global south’s bold carbon dioxide removal projects” Nature, 23 May 2023 (<https://www.nature.com/articles/d41586-023-01695-6>)
2. “Geoengineering is no climate fix. But calling it a moral hazard could be counterproductive” Bulletin of the Atomic Scientists, 10 DEC 2019 (<https://thebulletin.org/2019/12/geoengineering-is-no-climate-fix-but-calling-it-a-moral-hazard-could-be-counterproductive/>)
3. “The untold migration story - How improved policies can benefit both receiving and sending societies” Scholars Strategy Network, 22 MAR 2018 (<https://scholars.org/contribution/untold-migration-story-how-improved-policies-can-benefit-both-receiving-and-sending>)