MARCO MIOTTI

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EDUCATION

Massachusetts Institute of Technology 2014 - present
Ph.D. in Engineering Systems
Committee: Prof. Jessika Trancik (chair), Prof. John Heywood, Prof. P. Christopher Zegras

Swiss Federal Institute of Technology (ETH) Zurich 2010 - 2013
S.M. in Environmental Engineering
Thesis: *Life cycle and cost assessment of current and future fuel cell vehicles*

Swiss Federal Institute of Technology (ETH) Zurich 2007 - 2010
B.S. in Environmental Sciences
Thesis: *Temporal turnover patterns of phytoplankton composition in Lake Zurich*

RESEARCH & PROFESSIONAL EXPERIENCE

Massachusetts Institute of Technology September 2014 - present
Research Assistant | Cambridge, MA, USA

- Evaluating the emissions and costs of road vehicle technologies to find feasible pathways for meeting U.S. climate targets.
- Designing interactive websites to inform consumers about vehicle costs and emissions directly.
- Collaborating in a large-scale research project that aims to reduce travel energy consumption through a combination of personalized travel information and system-wide optimization.

Centro Nacional de Producción Más Limpia February 2014 - June 2014
Swiss Civilian Service | Bogotá, Colombia

- Informed new regulations and educational programs to handle electronic waste in Colombia.
- Drafted concept for new database to store information on electronic waste recycling sites.

Paul Scherrer Institute November 2013 - February 2014
Research Assistant | Villigen, Switzerland

- Evaluated real-world fuel economy, emissions, and production costs of fuel cell vehicles.
- Contributed to technology assessment of deep geothermal electricity and heat co-generation.

Global Risk Forum Davos August 2013 - October 2013
Swiss Civilian Service | Davos, Switzerland

- Supported the organization of the *4th Conference on Community Resiliency* in Davos.
- Assisted in the creation of a new peer-reviewed e-journal, *Planet@Risk*.

Evonik Industries March 2012 - September 2012
Intern | Marl, Germany & Shanghai, China

- Conducted several life cycle assessments of specialty chemical product.
- Carried out an interview-based case study on sustainability in the chemical industry in China.

JOURNAL PUBLICATIONS

Miotti, Needell, and Trancik. Quantifying reductions in personal vehicle fuel consumption due to driving style changes. *In final preparation.*

McNerney, Needell, Chang, **Miotti**, and Trancik. TripEnergy: Estimating personal vehicle energy consumption given limited travel survey data. *Transportation Research Record: Journal of the Transportation Research Board*, 2017.

Fletcher, **Miotti**, Swaminathan, Klemun, Strzepek, and Siddiqi. Water Supply Infrastructure Planning: Decision-Making Framework to Classify Multiple Uncertainties and Evaluate Flexible Design. *Journal of Water Resources Planning and Management*, 2017.

Miotti, Hofer, and Bauer. Integrated environmental and economic assessment of current and future fuel cell vehicles. *International Journal of Life Cycle Assessment*, 2017.

Miotti, Supran, Kim, and Trancik. Personal vehicles evaluated against climate change mitigation targets. *Environmental Science & Technology*, 2016.

REPORT AND BOOK CONTRIBUTIONS

Trancik, Brown, Jean, Kavlak, Klemun, Edwards, McNervey, **Miotti**, Mueller, and Needell. Technology improvement and emissions reductions as mutually reinforcing efforts: Observations from the global development of solar and wind energy. November 2015

Hirschberg, Wiemer, and Burgherr (EDS.). Energy from the Earth: Deep Geothermal as a Resource for the Future? *VDF Hochschulverlag, Zurich*, 2015.

AWARDS & HONORS

Martin Family Sustainability Fellowship 2018

Best Paper Award, Transportation Research Board Energy Subcommittee (as 4th author) 2018

Siebel Scholarship 2017

Most read letter of the week (11/20-11/26), The Financial Times 2017

Society of Industrial Ecology Young Professionals Scholarship 2017

Willi-Studer Award (for best GPA in master's program), ETH Zurich 2013

Perspectives membership (for outstanding interns), Evonik Industries 2013

Unitech Fellowship, ETH Zurich 2012

SELECTED CONFERENCE PRESENTATIONS

Miotti, Needell, and Trancik. Quantifying reductions in personal vehicle energy consumption due to driving style changes. Transportation Research Board 97th Annual Meeting, Washington DC, USA, 2018.

Miotti, Trancik. Evaluating the emissions and costs of light-duty vehicles. International Society for Industrial Ecology/International Symposium on Sustainable Systems and Technologies (ISIE-ISSST) Joint Conference, Chicago, USA, 17

Miotti, Supran, Kim, Trancik. Using a parameterized LCA to evaluate over 120 current passenger vehicle models against climate change mitigation targets. American Center for Life Cycle Assessment Conference (LCA XV), Vancouver, CA, 2015.

Miotti, Supran, Kim, Trancik. Evaluating the Climate Change Mitigation Potential of Personal Vehicle Technologies. International Society for Industrial Ecology (ISIE) Conference, Surrey, UK, 2015.

TEACHING EXPERIENCE

Seminar Participant
Kaufman Teaching Certificate Program (KTCP), MIT — Summer 2018

Undergraduate Research Supervision
Sai Sameer Pusapaty (Undergraduate Research Project) — Fall 2017
Christiane Adcock (Undergraduate Thesis in Course 2: Mechanical Engineering) — Spring 2017

Guest Lecturer
Introduction to Life Cycle Assessment, MIT — Fall 2017

Teaching Assistant
Mapping and Evaluating New Energy Technologies, MIT — Fall 2017

LEADERSHIP ACTIVITIES

Co-Organizer, MIT Policy Hackathon: From Data to Decisions — 2017 - present

Captain, MIT IDSS Hockey Team — 2017 - present

Impact Assessment Fellows Team Lead, MIT Climate CoLab — 2015 - 2017

Co-President, MIT Engineering Systems Student Society — 2016 - 2017

Seminar Chair, MIT Engineering Systems Student Society — 2015 - 2016

Member, Student Leadership in Sustainability at MIT Working Group — 2015 - 2016

Co-President / Graphic Design Lead / Waste Management Lead, FFP Music Festival — 2006 - 2012

PROFESSIONAL SERVICE

Manuscript reviewer
Environmental Science & Technology; Transportation Research Part D: Transport & Environment; Journal of Industrial Ecology.

Abstract reviewer
2017 International Society For Industrial Ecology (ISIE) Conference

SELECTED MEDIA COVERAGE

Manager Magazin. "Darum ist ein fetter Tesla sauberer als ein kleiner Ford."	2017-11-24
The Financial Times. "Reality is that most EVs emit less CO2 than petrol cars over their lifetimes."	2017-11-20
The Financial Times. "Electric cars' green image blackens beneath the bonnet."	2017-11-08
The Guardian. "New MIT app: check if your car meets climate targets."	2016-09-28
The New York Times. "An App to Help Save Emissions (and Maybe Money) When Buying a Car."	2016-09-27
NPR. "It May Not Cost You More To Drive Home In A Climate-Friendly Car."	2016-09-27
MIT News. "Study: Low-emissions vehicles are less expensive overall."	2016-09-27

PROFESSIONAL SOCIETIES

International Society for Industrial Ecology, Transportation Research Board (Affiliate Member)

SKILLS

Spoken languages
German (native), English (fluent), Spanish (conversational), Swedish (conversational), French (basic).

Programming and markup languages | 10,000+ lines written
Python, Javascript, PHP, HTML/CSS.

Programming and markup languages | 1,000+ lines written
Matlab, R, SQL, LaTeX.