# Haitam M. Laarabi, Ph.D.
## Energy/Environmental Policy Project Scientist

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34 years old, Moroccan
EU Permanent Resident | U.S. Resident Alien
Likes Swimming, Stargazing, Dancing, Climbing
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## Research Experience

**Project Scientist at LBNL – Role: Co-Lead BEAM development at LBNL**      Apr 2020 –
Ongoing
- Grid Enhanced Mobility Integrated Network Infrastructures for eXtreme Fast Charging (GEMINI-XFC) – DOE AOI 2A (since 2020)
    ⇒ Co-Leading BEAM-Grid modelling for the multi-lab project
    ⇒ Co-leading the integration of the different models: BEAM, Grid Model, Grid Controller (DERMS) and Site Power Manager Controller (SPMC)
    ⇒ Supervising master student for the design and implementation of a Ride-hail fleet Behind-The-Meter controller
- Freight Activity Simulators (FAMOS) – DOE SMART Mobility 2.0 (since 2020)
    ⇒ Leading BEAM-Freight modelling for the multi-lab project
- BEAM CORE – DOE SMART Mobility 2.0 (since 2020)
    ⇒ Co-Leading BEAM development & supporting BEAM CORE pipeline (PILATES) and scenarios to satisfy SMART Mobility 2.0 project scope
    ⇒ Supporting the integration of automated Mobility Energy Productivity and ATLAS sub-project into PILATES
    ⇒ Supporting the Dynamic Curb Management sub-project and facilitating synergies with FAMOS
- DOE EPI Modelling (since 2021)
    ⇒ Supporting the project through the New York transit-pandemic scenarios calibration.

**Project Scientist at LBNL – Role: Architect of Optimization Methods**      Nov 2018 –
Apr 2020
- BEAM – DOE SMART Mobility 1.0, BEAM as the modeling framework for Behavior, Energy, Autonomy and Mobility under the DOE SMART Mobility Consortium (beam.lbl.gov)
    ⇒ Contributed to critical BEAM model development to satisfy SMART Mobility project scope including: Ride hail pooling algorithm, Household autonomous vehicle scheduling algorithm, Micromobility management algorithm, Advanced skim and spatial indexing
    ⇒ Architect of all combinatorial optimization algorithms residing within BEAM

**Postdoc Research Associate at IIT-CNR, Pisa, Italy**      June 2015
to Oct 2018
- H2020 EU Project REPLICATE n. 691735 on the demonstration of Smart City technologies in Energy, Transport and ICT in districts
    ⇒ Analysis of data related to mobility and EV charging load in the city of Florence and extract patterns to be used as base model for prediction and informing Policy Decision

- H2020 EU Project <u>ESPRIT</u>, n. 653395 on an innovative electric car sharing concept as an alternative to public transport which deals with the shortcomings of conventional car sharing systems
  - ⇒ Analysis of existing conventional car sharing services, such Autolib, Bluely, Car2Go
  - ⇒ Designed the operational model that optimises the usage of the new carsharing mode on three different European cities: Lyon, Glasgow and Barcelona.
  - ⇒ To develop the traffic simulation framework as part of the Multi-Agent Traffic Simulator (MATSim) as a testbed for new car sharing concepts (available on "github.com/haitamlaarabi/carsharing")

Research Fellow, <u>DELAB</u>, University of Genoa, Italy

Jan 2015 to May 2015

- After concluding the PhD thesis, I pursued my PhD research work on transport of dangerous goods as a research fellow within the DELAB (DIBRIS & Eni joint Laboratory)

Member of the research group <u>Intelligent Mobility Future Vision</u>, UK

2014 - 2015

- Collaborated with Prof. Lee McCluskey at PARK lab, University of Huddersfield, to explore the potential of embedding autonomic computing properties into the design of transportation systems. By the incorporation of self-management properties in path planning within a decentralized traffic management system. The work is discussed by the published article "Towards ARTS: Releasing Latent Road Network Capacity through better Path Planning Management".

## Education

PhD, a joint Doctorate between UNIGE, Italy and ENSMP, France          2012 - 2014

- Pursued three years PhD studies in a joint collaboration between University of Genoa, UNIGE, Italy and Ecole des Mines de Paris, ENSMP, France, entitled "Multicriteria route optimization for dangerous goods transport using fuzzy risk assessment and agent-based traffic simulation". The PhD courses undertaken are respectively "Monitoring of Systems and Environmental Risks Management" (UNIGE) and "Sciences and Engineering of Hazardous Activities" (ENSMP).

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| MS in Software Engineering, at <u>FSTM</u>, University Hassan II, Morocco | 2009 - 2011 |
| BS in Computer Science, at <u>FSAC</u>, University Hassan II, Morocco | 2006 - 2008 |

## Industry Experience

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| Software Engineer, Novedia Group, French Offshore, Casablanca, Morocco | 2011 (1yr) |
| Internship, <u>Archos Technology</u>, Casablanca, Morocco | 2010 (6mos) |
| Summer Internship, Archos Conseil, Casablanca, Morocco | 2019 (2mos) |

## Awards

**Nominations:**

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| Nominated for Best Paper Awards during the 15th International Conference on Autonomous Agents and Multiagent Systems | 2016 |

**Grants:**

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| COST ARTS Grant, European Cooperation in Science and Technology for ARTS | 2014 |
| EUSFLAT Student Grant, European Society for Fuzzy Logic and Technology | 2013 |

## Publications

*More details on: https://scholar.google.it/citations?user=A_CJWhYAAAAJ*

*Berkeley, November 2022*
*Haitam M. Laarabi*