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Benjamin Goldstein

EDUCATION

- 2017 **Ph.D. in Management Engineering**, Technical University of Denmark (DTU), Copenhagen, Denmark
Thesis: *Assessing the edible city: the environmental implications of urban agriculture in the Northeast United States*
Supervisors: Assoc. Prof. Birkved (DTU), Prof. Hauschild (DTU) and Prof. Fernández (MIT)
- 2012 **M.Sc. in Environmental Engineering**, Technical University of Denmark, Copenhagen, Denmark
- 2007 **B.A.Sc. in Chemical Engineering**, University of Toronto, Toronto, Canada

EXPERIENCE

Professional Appointments

- 2017 – present **University of Michigan**, Ann Arbor, MI, United States
Postdoctoral research fellow, *School for environment and sustainability*

Academic Appointments

- 2012 – 2016 **Technical University of Denmark**, Copenhagen, Denmark
Graduate researcher, *Division for quantitative sustainability assessment*
- 2014 – 2015 **Massachusetts Institute of Technology**, Cambridge, MA, United States
Visitor graduate researcher, *Urban metabolism group*
- 2005 **University of Toronto**, Toronto, ON, Canada
Undergraduate researcher, *EyeTap Laboratory*

Industry

- 2009 – 2013 **AEL Environment**, Toronto, ON, Canada
Junior project manager

RESEARCH INTERESTS

- Urban systems, planning and design
- Environmental impacts of production-consumption systems
- Industrial ecology
- Political ecology

TEACHING EXPERIENCE

Teaching Assistant

- 2014 – 2016 *Life Cycle Assessment of Products and Systems (42372)*, Fall
DTU Dep't of Management Engineering, Assoc. Prof. Alexis Laurent

Adviser

- 2017 *Environmental Sustainability Assessment of Advanced Agricultural Waste Technologies and Agricultural Territories*, DTU Ph.D Project (as co-supervisor)
Joshua Sohn
- 2016 *Management of urban nutrient cycles and sinks in the City of Copenhagen*, DTU Master's Thesis
Leire Diez Larrea
- Urban nutrient cycles and sinks in the City of Copenhagen*, DTU Master's Thesis
Saimonas Skurichinas
- Green Urbanism - Does it have an effect on our quality of life?*, DTU Bachelor's Thesis
Davide Casella and Michael Reymann
- 2014 *DGNB new urban district method in sustainable planning*, DTU Master's Thesis
Andreas Secher
- Comparison of pollutants in fruits and vegetables from conventional farming with vegetables and fruits from urban gardening*, DTU Bachelor's Thesis
Cindy Jespersen
- Semi-quantitative assessment of environmental benefits and burdens of urban agriculture relative to conventional agriculture*, DTU Bachelor's Thesis
Ida Christiansen

Guest Lectures (Internal)

- 2015 "Assessing the edible city." *Sustainability and Life Cycle Assessment (11997)*, Assoc. Prof. Morten Birkved, Dep't of Civil Engineering, DTU, Copenhagen, DK, October 15
- 2014 "The sustainability of urban agriculture from a life cycle perspective." *Sustainability and Life Cycle Assessment (11997)*, Assoc. Prof. Morten Birkved, Dep't of Civil Engineering, DTU, Copenhagen, DK, October 19

PUBLICATIONS

Peer Reviewed Journal Articles

- 2017 **Goldstein, B.**, Moses, R., Sammons, N. and Birkved, M., Potential to curb the environmental burdens of American beef consumption using a novel plant-based beef substitute. *PLoS One* doi: 10.1371/journal.pone.0189029
- Goldstein, B.**, Birkved, M., Fernández, J. and Hauschild, M., Surveying the Environmental Footprint of Urban Food Consumption. *J Ind Ecol.* doi: 10.1111/jiec.12384
- Goldstein, B.**, Hauschild, M., Fernández, J. and Birkved, M., Contributions of Local Farming to Urban Sustainability in the Northeast United States *Env. Sci. & Tech.* doi: 10.1021/acs.est.7b01011
- Mohareb, E., Martin, M., Paige, N., **Goldstein, B.**, Fonoll, X. and Raskin, L., Considerations for reducing food system energy demand while scaling up urban agriculture. *Environ Res Lett.* doi: 10.1088/1748-9326/aa889b
- 2016 **Goldstein, B.**, Hauschild, M., Fernández, J. and Birkved, M., Testing the environmental performance of urban agriculture as a food supply in northern climates. *J Clean Prod.* doi: 10.1016/j.jclepro.2016.07.004
- Goldstein, B.**, Hauschild, M., Fernández, J. and Birkved, M., Urban versus conventional agriculture, taxonomy of resource profiles: a review. *Agron Sustain Dev.* doi: 10.1007/s13593-015-0348-4

Goldstein, B., Hansen, S.F., Gjerris, M., Laurent, A. and Birkved, M. Ethical aspects of life cycle assessments of diets *Food Policy*. doi: 10.1016/j.foodpol.2016.01.006

2013 **Goldstein, B.**, Birkved M., Quitzau, M-J, and Hauschild M., Quantification of urban metabolism by coupling with the life cycle assessment framework: concept development and case study. *Environ Res Lett*. doi: 10.1088/1748-9326/8/3/035024

Goldstein, B., Herbøl, M., and Figueroa M. Gaps in tools assessing the energy implications of renovation versus rebuilding decisions. *Curr Opin Environ Sustain*. doi: 10.1016/j.cosust.2013.03.

Conference Proceedings

2014 **Goldstein, B.**, Birkved, M., Hauschild, M. and Fernández, J., Urban agricultural typologies and the need to quantify their potential to reduce a city's environmental 'foodprint'. *Proceedings of the World Sustainable Buildings Conference 2014, Barcelona, ES, 28-30 Oct*

2013 Birkved, M. and **Goldstein, B.**, Environmental sustainability assessment of urban systems applying coupled urban metabolism and life cycle assessment. *Proceedings of the Sustainable Buildings Conference 2013, Graz, AU, 25-28 Sep*

Book Chapter

2018 **Goldstein, B.** and Rasmussen, F., Chapter 30: LCA of buildings and the built environment. *Proceedings of LCA Textbook*. Springer

Editorials

2017 Ernstoff, A., Stylianou, K. and **Goldstein, B.**, Response to: Dietary strategies to reduce environmental impact must be nutritionally complete *J Clean Prod*. doi: 10.1016/j.jclepro.2017.05.205

CONFERENCE ACTIVITIES

Oral Presentations

2017 Assessing the edible city *8th Conference for the International Society for Industrial Ecology*, University of Illinois at Chicago, Chicago, US, 28 Jun

2015 Testing the assertion that urban agriculture is sustainable. *DTU Sustain Conference 2015*, Copenhagen, DK, 17 Dec

2014 Urban 'Food-prints' and Urban Agriculture - Supplying Food in an Urbanizing World. *World Sustainable Buildings Conference 2014*, Barcelona, ES, 28-30 Oct

Urban agricultural typologies and the need to quantify their potential to reduce a city's environmental 'food-print'. *5th NorLCA Biennial Case Symposium*, Reykjavik, IS, 2-3 Oct

Posters

2016 Testing the environmental performance of urban agriculture as a food supply in northern climates. *Gordon Research Conference on Industrial Ecology*, Stowe, VT, 19-24 Jun

2015 Quantifying urban 'foodprints' and mitigation opportunities. *8th Conference for the International Society for Industrial Ecology*, University of Surrey, Guildford, UK, 7-10 Jul

SERVICE ACTIVITIES

Peer-Review Service

- 2015 – 2016 *Agronomy for Sustainable Development* (Springer)
- 2016 *Challenges in Sustainability* (Librello)
- 2017 – 2018 *Environmental Science & Technology* (American Chemical Society)
- 2017 *Environmental Science & Policy* (Elsevier)
- 2015 – 2017 *Global Environmental Change* (Elsevier)
- 2014 – 2016 *Journal of Industrial Ecology* (Yale University Press)
- 2017 *Procedia CIRP* (Elsevier)
- 2015 *Resources, Conservation and Recycling* (Elsevier)
- 2017 *Sustainability* (MDPI)
- 2017 *Sustainable Cities and Society* (Elsevier)

Institutional Contributions

- 2014 – 2016 *Social Media Ambassador* for Division for Quantitative Sustainability Assessment
- 2015 – 2016 *President* of Graduate Students Social Union for Quantitative Sustainability Assessment

PROFESSIONAL MEMBERSHIPS

- 2014 – present International Society for Industrial Ecology
- 2012 – 2018 Danish Society of Engineers

AWARDS & HONORS

- 2018 **Gordon Research Conference on Industrial Ecology Travel Grant** (1,250 EUR)
- 2017 **Young Researcher Award**, Technical University of Denmark (15,000 dkk)
- 2014 **Jorck and Hustrus Grant**, Reinhold Fund (20,000 dkk)
- 2014 **International Study Bursary**, Augustinus Fund (20,000 dkk)
- 2012 **Foreign Student Award**, Technical University of Denmark (5,000 dkk)

PRESS COVERAGE

- 2017 *Bloomberg* Urban farming won't save us from climate change.
- Seeker (Discovery Channel)* Urban farming isn't a game changer when it comes to carbon emissions.