

# Christian Kaps

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## Employment

07/23 – now Harvard Business School, Cambridge (US)  
Assistant Professor, Technology & Operations Management

## Education

07/18 – 05/23 Wharton Business School, Philadelphia (US)  
PhD, Operations Management  
Committee: Serguei Netessine, Simone Marinesi, Santiago Gallino

09/16 – 12/17 RSM – Rotterdam School of Management, Rotterdam (NL)  
MSc, Supply Chain Management  
Exchange at Wharton Business School, Philadelphia (US)

08/11 – 09/14 WHU – Otto Beisheim School of Management, Vallendar (DE)  
BSc, Business Administration and Law  
Exchange at Korea University Business School, Seoul (KR)

## Research

### ■ Articles Published or Forthcoming

[1] Balk, B.M., De Koster, M.R., Kaps, C. and Zofío, J.L., 2021. An evaluation of cross-efficiency methods: With an application to warehouse performance. *Applied Mathematics and Computation*, 406, p.126261.

[2] Kaps, C., Marinesi, S. and Netessine, S., 2022. When should the Off-grid Sun Shine at Night? Optimum Renewable Generation and Energy Storage Investments. (Forthcoming, Management Science) [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3761397](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3761397)

### ■ Working Papers (partially available on [SSRN](https://papers.ssrn.com))

Kaps, C., Netessine, S., 2022. Privately-Owned Battery Storage - Reshaping The Way We Do Electricity. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4219247](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4219247)

Kaps, C., 2022. Quality-Adjusted-Power: How to Decide Where to Site Renewables.

Kaps, C., Gallino, S., 2022. Solar and Wind Capacity Limits in Electricity Grids with Hydropower.

### ■ Service

Referee: Management Science, M&SOM, Omega, Operations Research

2022 Organizing Committee Member, Early-Career Sustainable OM Workshop, Virtual

2021-22 Wharton PhD student representative

2021 Moderating Sustainability Session at LSE's Germany Symposium, Virtual

2020 Organizing Committee Member, Wharton-INSEAD Doctoral Consortium, Fontainebleau

## ■ Honors

2018-2023, Wharton PhD Fellowship

2023, Finalist, POMS COMS Student Paper Competition

*"Privately-Owned Battery Storage - Reshaping The Way We Do Electricity."*

2023, Second Place, POMS PITM Student Paper Competition

*"Privately-Owned Battery Storage - Reshaping The Way We Do Electricity."*

2022, Honorable Mention, POMS CSO Student Paper Competition

*"When should the Off-grid Sun Shine at Night? Optimum Renewable Generation and Energy Storage Investments. Optimum Renewable Generation and Energy Storage Investments."*

2019, Dutch Material Handling Thesis Award

*"Towards better warehouse efficiency distinction through cross-efficiency measurement"*

2018, SmartPort Thesisprice

*"Towards better warehouse efficiency distinction through cross-efficiency measurement"*

2017, Professor Jo van Nunen Award

*"Towards better warehouse efficiency distinction through cross-efficiency measurement"*

## ■ Invited Presentations (By Year)

2023 University of Southern California, Harvard Business School, UT Dallas, Columbia Business School.

2022 University of Boulder Colorado, Indiana University, IESE Business School, The Ohio State University, Vanderbilt University, Rice University, University of Michigan, Boston College.

## ■ Conference Presentations

2023, Early-Career Sustainable Operations Workshop, Amherst, US

*"Privately-Owned Battery Storage - Reshaping The Way We Do Electricity"*

2022, INFORMS Annual Meeting, Indianapolis, US

*"Privately-Owned Battery Storage - Reshaping The Way We Do Electricity"*

2022, INFORMS Annual Meeting, Indianapolis, US

*"When should the off-grid sun shine at night? Optimum renewable generation and energy storage investments"*

2022, MSOM Conference, Munich, DE

*"Privately-Owned Battery Storage - Reshaping The Way We Do Electricity"*

2022, MSOM Conference, Munich, DE

*"When should the off-grid sun shine at night? Optimum renewable generation and energy storage investments"*

2022, POMS Annual Conference, Virtual

*"Privately-Owned Battery Storage - Reshaping The Way We Do Electricity"*

2022, Wharton-INSEAD Doctoral Consortium, Fontainebleau, FR

*"Privately-Owned Battery Storage - Reshaping The Way We Do Electricity"*

2021, INFORMS Annual Meeting, Anaheim, US

*"When should the off-grid sun shine at night? Optimum renewable generation and energy storage investments"*

2021, POMS Annual Meeting, Virtual  
*"When the wind of change blows, build batteries? Optimum renewable generation and energy storage investments"*

2020, INFORMS Annual Meeting, Virtual  
*"When the wind of change blows, build batteries? Optimum renewable generation and energy storage investments"*

2020, Early-Career Sustainable Operations Workshop, Washington DC, US  
*"When the wind of change blows, build batteries? Optimum renewable generation and energy storage investments"*

## ■ Teaching

Graduate Teaching Assistant, Wharton Business School, Spring 2023  
OIDD611: Operations Management: Quality and Productivity – with Simone Marinesi

Lecturer, Wharton Undergraduate Course, Spring 2023  
WH1508: Evaluating Evidence

Instructor, Wharton Global Youth Program, Summer 2022 (evaluation 3.45/4.00)  
OIDD001: Prescriptive Analytics: Making Business Decisions using Optimization and Simulation

Course Organizer, Wharton Global Modular Courses, Summer 2022  
MGMT897: Innovations in Environmental Sustainability: Germany's Approach, Progress and Future Challenges – with Nicolaj Siggelkow and John Paul MacDuffie

Instructor, Wharton Global Youth Program, Fall 2021  
OIDD001: Prescriptive Analytics: Making Business Decisions using Optimization and Simulation

Graduate Teaching Assistant, Wharton Business School, Fall 2021  
OIDD321: Introduction to Management Science – with Hamsa Bastani

Graduate Teaching Assistant, Wharton Business School, Fall 2020  
OIDD101: Introduction to Operations – with Daniel Rock, Hummy Song, and Sergei Savin

EMBA Teaching Assistant, Wharton Business School, Summer 2020  
OIDD636: Scaling Operations: Linking Strategy and Execution – with Gad Allon

Graduate Teaching Assistant, Wharton Business School, Spring 2020  
OIDD636: Scaling Operations: Linking Strategy and Execution – with Gad Allon

Lecturer, Wharton Business School - Leadership in a Business World, Summer 2019  
Course: Introduction to Operations

Lecturer, Wharton Business School - Leadership in a Business World, Summer 2019  
Course: Python Programming 101

Lecturer, Wharton Business School – SMASH Academy, Summer 2019  
Course: Python Programming 101

## ■ Funded Research

Mack Institute PhD Fellowship, 2022  
*Research project "Privately-Owned Battery Storage - Reshaping The Way We Do Electricity", Extension"*

\$8,000

Kleinman Energy Center Research Grant, 2022

*Research project "Privately-Owned Battery Storage - Reshaping The Way We Do Electricity"*

\$15,000

Mack Institute PhD Fellowship, 2021

*Research project "Privately-Owned Battery Storage - Reshaping The Way We Do Electricity"*

\$6,000

Russell Ackoff Doctoral Student Fellowship, 2021

*Research project "Privately-Owned Battery Storage - Reshaping The Way We Do Electricity"*

\$2,500

Mack Institute PhD Fellowship, 2020

*Research project "Power-to-X – Why and when to use electricity to make gas renewable"*

\$4,000

Mack Institute PhD Fellowship, 2019

*Research project "Energy Storage Capacity Investment for Grids with Renewable Generation"*

\$5,000

Kleinman Energy Center Research Grant, 2019

*Research project "Guiding Energy Storage Capacity Investment for Renewable Grids"*

\$4,250

## **Professional**

01/21 – 08/21

AWS, Economic Development and Public Policy Researcher, Virtual

- Performed economic impact study of renewable energy projects
- Investigated impact of cloud IT investment on national economies

02/16 – 08/16

BMW AG, Big Data Material Planning internship, Wackersdorf (DE)

- Programmed & launched material control and ordering tool
- Optimized Chinese factory supply, saving 4% in logistics cost

01/15 – 01/16

Gap Year including military service, work & travel in Canada

10/14 – 12/14

Bonaverde, Head of Finance and Business Intelligence, Berlin (DE)

- Managed investor leads for €2mn. Series-A funding round
- Established SQL-based business intelligence environment

06/14 – 09/14

BMW Manufacturing, In-House Consulting internship, Greenville (US)

- Analyzed capacity of Tier-2 supplier, leading to \$20mn. investment
- Improved of leather seat supply chain, reducing scrap by 17%

06/13 – 08/13

J.P.Morgan, Investment Banking - M&A internship, Frankfurt (DE)

- Created IPO prospectus & investors pitch for \$750mn. deal
- Modelled and valued multiple companies and deals

## ■ **Language Skills**

German

Native speaker

English

TOEFL 118/120

Spanish

Conversational

## ■ Tests Scores

GMAT 770 points *99<sup>th</sup> percentile* (51 quant, 44 verbal)  
GRE 170 points quant *97<sup>th</sup> percentile*, 160 points verbal *86<sup>th</sup> percentile*

## ■ Computer Skills

Microsoft Office & VBA (advanced)  
Python, R, Julia, MATLAB (advanced), SQL, Java, JS (intermediate)