

# Aman Majid

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Professional Interests	Energy-water nexus, systems modelling, energy policy, sustainable development, demand-side response, and remote sensing	
Current Appointments	<b>University of Oxford</b> — <i>Postdoctoral Researcher</i> , Environmental Change Institute — <i>Research Associate</i> , Oxford Martin School	2021– 2020–
Previous Appointments	<b>University of Oxford</b> <i>Graduate Research Assistant</i>	2018–
	<b>University of Auckland</b> <i>Visiting Researcher</i>	2019–2020
	<b>International Institute for Applied Systems Analysis (IIASA)</b> <i>Visiting Research Fellow (YSSP)</i>	2018
	<b>University of Sheffield</b> <i>Undergraduate Research Fellow</i>	2015–2016
Other Experience	<b>PricewaterhouseCoopers (PwC)</b>   Newcastle, UK <i>Risk Analyst</i>	2015
	<b>IBM</b>   London, UK <i>Energy and Utilities Consultant</i>	2014–2015
	<b>MBA Polymers</b>   Nottingham, UK <i>Process Optimisation and Controls Engineer</i>	2013
Teaching	<b>University of Oxford</b> — <i>Tutor in Mathematics and Fluid Dynamics</i> (New College) — <i>Tutor in Scientific Programming</i> (NERC DTP) — <i>Teaching Assistant in Biodiversity and Conservation</i>	2017–2019 2017–2018 2017–2018

Education	<b>University of Oxford</b> D.Phil., Environmental Science and Engineering 2016–2021 <ul style="list-style-type: none"> <li>• EDF Energy CASE Fellowship</li> <li>• NERC-Oxford Doctoral Fellowship</li> </ul>	
	<b>University of Sheffield</b> M.Eng., Chemical Engineering (First Class Hons.) 2011–2016 <ul style="list-style-type: none"> <li>• University of Sheffield Best Graduate Award</li> <li>• Siddall Prize for academic and personal achievement</li> <li>• Harley Scholarship</li> <li>• Departmental Prize for best research student</li> </ul>	
Awards and Honors	<i>Maria Skłodowska-Curie Fellowship</i> , European Union 2019	
	<i>Young Scientist Fellowship (YSSP)</i> , IIASA and NERC 2018	
	<i>Young Engineer Prize</i> , Institute of Chemical Engineers (IChemE) 2017	
Programming and Software	Python, R, Git, Linux, MATLAB, $\text{\LaTeX}$ QGIS, ArcGIS, Excel, VBA, Ansys Fluent	
Languages	English, Urdu, Hindi, and Spanish	
Publications	<p><b>Majid, A.</b>, Cardenes, I., Zorn, C., Russell, T., Colquhoun, K., Bañares-Alcantara, R., and Hall, J.W., 2020. <a href="#">An Analysis of Electricity Consumption Patterns in the Water and Wastewater Sectors in South East England, UK</a>. <i>Water</i>, 12(1), DOI:<a href="https://doi.org/10.3390/w12010225">https://doi.org/10.3390/w12010225</a>.</p> <p>Cardenes, I., Hall, J.W., Eyre, N., <b>Majid, A.</b>, and Jarvis, S., 2020. <a href="#">Quantifying the energy consumption and greenhouse gas emissions of changing wastewater quality standards</a>. <i>Water Science and Technology</i>, 228(1), DOI:<a href="https://doi.org/10.2166/wst.2020.228">https://doi.org/10.2166/wst.2020.228</a>.</p>	

**Majid, A.,** Val Martin, M., Lamsal, L.N., and Duncan, B.N., 2017. [A decade of changes in nitrogen oxides over regions of oil and natural gas activity in the United States.](#) *Elementa: Science of the Anthropocene*, 5(1), DOI:<http://doi.org/10.1525/elementa.259>.

## Papers in Review

**Majid, A.,** van Zyl, K., and Hall, J.W., [The influence of temporal variability and reservoir management on demand-response in the water sector: a study from London, UK.](#)

**Majid, A.,** Mortazavi-Naeini, M., and Hall, J.W. [Efficient pathways to zero-carbon energy use by water supply utilities: an example from London, UK.](#)

## Working Papers

**Majid, A.,** Downward, T., and Hall, J.W. [An open-source water, wastewater, and electricity simulation model: an example from Greater London, UK.](#)

**Majid, A.,** Cüceloğlu, G., Gal, N., and Hall, J.W. [Meeting energy goals through political cooperation: the case of Israel, Jordan, and the Palestinian Authority.](#)

**Majid, A.,** Pant, R., and Hall, J.W. [Evaluating the robustness of Jamaica's power system to climatic shocks.](#)

## Selected Talks

[Transboundary resources water and energy resources management in Israel, Palestine, and Jordan.](#) 2020. *Decision-Making Under Deep Uncertainty (DMDU) Society Annual Assembly*, Online.

[Simulating temporal variability in energy-water systems using the multi-commodity flow algorithm for robust operations and infrastructure planning.](#) 2019. *EGU General Assembly 2019*, Vienna, Austria.

[The energy-water nexus: opportunities for a national transition in the UK.](#) 2018. *EDF Energy Seminar Series*, EDF R&D, London, UK.

[The energy-water nexus: integrated systems modelling.](#) 2018. *University of São Paulo Workshop on the energy-water nexus*, São Carlos Campus, Brazil.

Risk-based water resources planning: a blueprint for the UK water sector. 2018. *ITRC-MISTRAL assembly*, Institute of Civil Engineers, London, UK.

Using machine learning to reduce energy consumption in the water sector. 2017. *Institute of Chemical Engineers Water SIG*, Rugby, UK.

Aerosol impacts from the U.S. fracking industry: a case-study using MODIS and OMI observations. 2015. *AeroCenter Seminar Series*, NASA, Greenbelt, U.S.

## Referees

### **Professor Jim Hall FEng**

Professor of Climate Risks, University of Oxford  
jim.hall@eci.ox.ac.uk

### **Professor René Bañares-Alcantara**

Reader in Engineering Science, University of Oxford  
rene.banares@eng.ox.ac.uk

### **Dr. Maria Val Martin**

Lecturer in Environmental Systems, University of Sheffield  
m.valmartin@sheffield.ac.uk