

GEORGIOS DESKOS, PHD

Offshore Wind Energy – Computational Fluid Dynamics – Catastrophe & Risk Modelling

Senior Research Engineer, National Renewable Energy Laboratory, Golden, CO

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Education

PhD in Earth Science and Engineering <i>Imperial College London, UK</i>	2019
MSc in Civil Engineering <i>Virginia Tech, Blacksburg, VA, USA</i>	2014
BEng & MEng in Civil & Environmental Engineering <i>National Technical University of Athens, Greece</i>	2012

Research and Professional Experience

Project leader and Senior Offshore Wind Research Engineer <i>National Renewable Energy Laboratory</i>	August 2023 – Present <i>Golden, CO</i>
Offshore Wind High-Fidelity Modeling Researcher <i>National Renewable Energy Laboratory</i>	June 2021 – August 2023 <i>Golden, CO</i>
Postdoctoral Researcher <i>National Renewable Energy Laboratory</i>	October 2019 – May 2021 <i>Golden, CO</i>
Postdoctoral Research Associate <i>Imperial College London</i>	July 2018 – August 2019 <i>London, UK</i>
Research Assistant <i>Imperial College London</i>	October 2014 – June 2015 <i>London, UK</i>

Recently Funded Research

2023-Present	NOWRDC, Inter-array wakes Joint Industry Project (PI Deskos)	\$1M+
2022-Present	US Department of Energy, STORM (PI Deskos)	\$600k
2023-Present	Bureau of Safety and Environmental Enforcement, Idling Turbines (PI Deskos)	\$300k

Selected Honors & Awards

2023	President's Award for Exceptional Performance, NREL	Golden, CO
2021	President's Award for Exceptional Performance, NREL	Golden, CO
2018	Osbourne Reynolds Fluid Mechanics Award, ERCOFTAC	Manchester, UK

Selected Peer-Reviewed Publications (out of 25 total publications)

Wind Fields in Cat. 1-3 TCs Are Not Fully Represented in Wind Turb. Design Standards <i>M. S. Gomez, J. K. Lundquist, G. Deskos, et al., Journal of Geophysical Research: Atmospheres</i>	2023
Turbulent entrainment in finite-length wind farms <i>N. Bempedelis, S. Laizet, and G. Deskos, Journal of Fluid Mechanics 955, doi: 10.1017/jfm.2022.1064.</i>	2023
Mass-momentum consistent coupling for mesh-adaptive two-phase flow simulations <i>M. B. Kuhn, G. Deskos, and M. A. Sprague, Computers & Fluids 252</i>	2023
Scientific challenges to characterizing the wind resource in the marine ABL <i>W. J. Shaw et al., Wind Energy Science Journal</i>	2022
Review of wind-wave coupling models for large-eddy simulation of the marine ABL <i>Deskos G., J. C. Y. Lee, C. Draxl, and M. A. Sprague, Journal of the Atmospheric Sciences</i>	2021
On the spectral behaviour of the turbulence-driven power fluctuations of HATs <i>Deskos G., G. S. Payne, B. Gaurier, and M. Graham, Journal of Fluid Mechanics</i>	2020
Turbulence-resolving simulations of wind turbine wakes <i>Deskos G., S. Laizet, and M. D. Piggott, Renewable Energy</i>	2019