Moetasim Ashfaq

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Moetasim Ashfaq is a scientist for the Computing and Computational Sciences Directorate and the Climate Change Science Institute at ORNL. Ashfaq is an atmospheric physicist with training in both physics and atmospheric science. His research is focused on understanding the nature of interactions among the various components of the climate system and the role of these interactions in shaping past, present, and future hydro-climatic changes in response to variations in radiative forcing. In pursuing these research interests, he applies a suite of Earth system modeling tools to study global- to local-scale hydro-climatic problems.

Ashfaq received his doctorate in atmospheric sciences from Purdue University in 2009. He was also the 2009 recipient of the Henry Silver Graduate Research Excellence Scholarship. His PhD work was focused on understanding how large- and fine-scale climate processes respond to anthropogenic increases in greenhouse forcing, including the uncertainties associated with climate model errors.

Ashfaq is involved in two CCSI projects—"Ultra High-Resolution Global Climate Simulation," which focuses on employing very high-resolution global models to investigate regional-scale phenomena, and "Development of Frameworks for Robust Regional Climate Modeling," which seeks to develop frameworks for robust regional climate modeling through systematic and hierarchical evaluation of different modeling approaches and improved understanding of factors contributing to model uncertainties.

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