

## Richard K. Archibald



**Scientist**

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Richard K. Archibald is a staff scientist in the Computational Mathematics group at ORNL. He held the Alston S. Householder Fellowship in Scientific Computing from 2005 until his staff appointment in 2007. Archibald received both his BS in physics and his MS in mathematics from the University of Alberta in Edmonton, Canada in 1996 and 1998, respectively. He obtained his PhD in mathematics from the University of Alberta-Edmonton in 2002.

Archibald's current research interests include developing uncertainty quantification algorithms for climate models, designing algorithms for the next generation of high-performance architecture, and establishing long-time integration steps for the dynamical core of climate models at high resolution. He is presently involved in the Center for Advanced Architecture's HOMME project, as well as "Ultra-High Resolution Global Climate Simulations" with principal investigator Jim Hack and researcher Kate Evans. This project seeks to develop the scientific framework to ascertain the benefit of employing very-high-resolution global models to investigate regional-scale phenomena.

Archibald has authored or co-authored a number of works for preeminent journals such as Applied Numerical Mathematics, Computational Science, the Journal of Computational Physics, and the Society for Industrial and Applied Mathematics Journal on Numerical Analysis. He is also a researcher with the Statistical and Applied Mathematical Sciences Institute, a National Science Foundation mathematical institute.

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