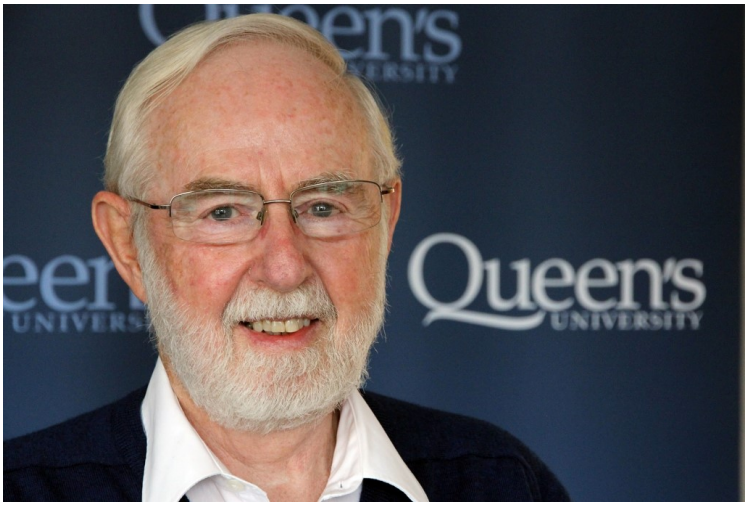
2017 J. Mark Sowers Distinguished Lecture Series in the College of Science at Virginia Tech



Arthur B. McDonald
Nobel Laureate
Queen's University

Public Lecture:
7:30 PM - Thursday, April 27th
100 McBryde Hall
225 Stanger Street
Blacksburg, Virginia

How Unusual: Going 1.2 Miles Underground to Study the Sun and the Space Between the Stars

By going more than a mile underground and creating an ultra-clean laboratory it is possible to address some very fundamental questions about our universe: How does the sun burn? What are the dark matter particles making up 27 percent of our universe? What are the properties of neutrinos, elusive particles that are one of the fundamental building blocks of nature? How do these particles influence how our universe evolves? With the Sudbury Neutrino Observatory, we were able to observe new properties of neutrinos that go beyond the standard model of elementary particles and also confirm that the models of how the sun burns are very accurate. We are welcoming the world in collaborative experiments that are looking for the properties of dark matter particles (present in the spaces between the stars) and looking for neutrino signals from supernovae in our galaxy, from the Earth and from the sun. The advantages created by the development of one of the lowest radioactivity laboratories in the world and the resulting fundamental science will be described by McDonald during his talk.

Virginia Tech Department of Physics

For more info, please visit the
J. Mark Sowers Distinguished Lecture Series
in the College of Science website at
www.science.vt.edu/sowers.

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Center for Neutrino Physics at Virginia Tech