

Physics Colloquium

Professor Bruce Vogelaar

(Physics, Virginia Tech)

**“The CNO energy-production mechanism in the universe is
detected by Borexino”**

Friday, December 4, 2020

2:30pm—3:30pm

Zoom link: <https://virginiatech.zoom.us/j/96084996911>

An international team of about 100 scientists of the Borexino Collaboration reported in Nature this week a spectral measurement of neutrinos from the sun, directly revealing for the first time operation of the carbon-nitrogen-oxygen (CNO) fusion-cycle which is expected to be the dominant energy source powering stars heavier than the Sun. How this was accomplished will be explained, along the implications, and likelihood of even improved results. Some aspects of Virginia Tech's role just might be highlighted.