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"COMPARING THE IMPACT OF ARCTIC AND MID-ATLANTIC SUBMARINE CANYONS ON SHELF-BASIN EXCHANGE"

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Monday, April 4, 2016
3:30 PM
Conference Center, Innovation Research Park Building II
4211 Monarch Way, Norfolk, VA 23508

Abstract
Shelf-break submarine canyons are common along many continental shelf systems around the world. They are formed and continue to be modified by a combination of geomorphological processes over a range of temporal scales. Many canyons have been shown to be highly biologically productive with rich biodiversity. The canyons also play a significant role in facilitating shelf-basin exchange of water masses, heat, salt, nutrients, and organic matter. In this talk, we will explore the circulation and transport associated with a few large submarine canyons in the Mid-Atlantic and the Arctic, including the Hudson Canyon, Washington Canyon, and Barrow Canyon. Recent observational studies using ships and gliders indicate that submarine canyons can dominate shelf-basin exchange flow over normal shelf-break regions, and in one case, it can serve as a key transport gateway between ocean basins. We will focus on how different forcing factors can affect canyon circulation/dynamics and identify topics for future investigations.

Biography
Dr. Gong received a Ph.D. in Oceanography from Rutgers University. He was a postdoctoral scholar at WHOI during which time he was a guest scientist on the Sea Education Association's WHOI/MIT Joint Program orientation cruise. He is now an Assistant Professor at the Virginia Institute of Marine Science. In addition to his research, Dr. Gong develops and participates in numerous marine science education and outreach programs that are designed to introduce K-12 students and the public to new research and ocean observing technologies.

Reception before seminar at 3:00 PM