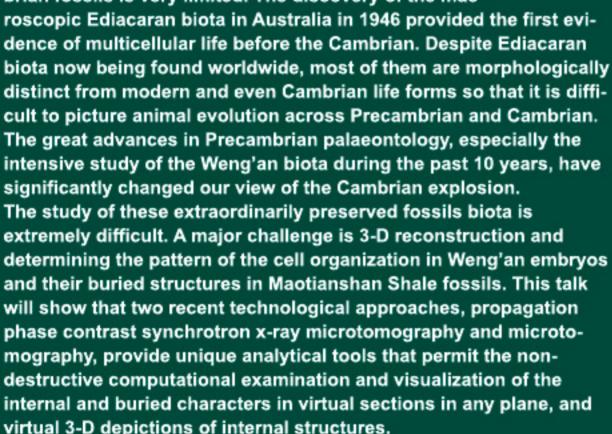


## Jun-Yuan Chen The Cambrian Evolutionary Explosion: Novel Evidence from Fossils Studied by X-ray Tomography

The Cambrian explosion (from 542 million years to 488 million years ago) is one of the great mysteries in evolutionary biology. It wasn't until this period that complex organisms became common and diverse. The magnitude of the event can be understood based on the contrast between the biota and the degree of diversity of the fossils from both sides. Great advances have been made in Cambrian palaeontology over the past century, especially the discovery of the well-preserved soft-bodied fauna from the Middle Cambrian Burgess Shale and the Lower Cambrian Maotianshan Shale deposits. The Cambrian side of the "Cambrian explosion" is richly illustrated and contrasts greatly with the Precambrian side. Compared with the Cambrian, our knowledge of Precambrian fossils is very limited. The discovery of the mac-





Jun-Yuan Chen is one of paleontologists world. He is currently a senior scientist in Nanjing Institute of Geology & Paleontology and a Professor in Nanjing University, China. He has been the lead author of numerous Science and Nature articles and several textbooks, and coauthored more than 100 research papers, which revolutionarily changed the common view about the Cambrian explosion. His current work on Early Cambrian Maotianshan Shale biota and Precambrian Weng'an biota has contributed to the new understanding of the evolutionary origins of animals, especially vertebrates and arthropods.

## Wednesday, June 1, 2011 | 3:00 p.m.

APS Auditorium Argonne National Laboratory

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