



**Quantum Cosmology and Creation**  
**George V. Coyne, S.J.**  
**Le Moyne College, Syracuse, NY**

**When:** Thursday, 21 August 2014 , 10:30am - 12:00pm.

**Where:** ADEM Amphitheater, UPRM

As part of the *Cosmology, Evolution, and Belief* interdisciplinary seminar cycle of the National Endowment for the Humanities Convergence of Science, Technology, and the Humanities project: Dr. George Coyne, S.J., a former director of the Vatican Observatory and one of the leading scholars articulating a relationship between natural sciences and theology will give a presentation at UPRM entitled "**Quantum Cosmology and Creation**". For more information please contact Dana Collins at [civis@uprm.edu](mailto:civis@uprm.edu) or ext. 5722.

Currently, there is a heated topic of discussion concerning the origins of the universe as presented by cosmological theories and religious accounts. Some quantum cosmologists claim that, if certain quantum cosmological theories of the origins of the universe without boundary conditions are correct, then we have no need of God. Others attempt to claim that with Big Bang cosmologies scientists discover what had already been known from the Book of Genesis, namely that the universe had a beginning in God's creative action. There is also a third position, those who profess that divine activity is required, at least in some phases of the evolutionary process and, in particular at the occurrence of human life and intelligence, because natural processes alone are not adequate to explain the end result. Does this discussion happen due to an essential conflict between natural sciences and religions?

Coyne belong to a group that sustains that natural sciences and religions are complementary and not in conflict. However, a possible dialogue between these two sources of knowledge raises some questions. To what extent can our scientific knowledge about the origins of the universe and the evolution of life influence our religious beliefs? And, on the other hand, to what extent can religious thought make a contribution to our scientific understanding of the origins and evolution of life in the universe? Moreover, is the religious notion of creation in conflict with current cosmological worldviews? Or, on the contrary, Quantum cosmological views of "vacuum fluctuations" and the theological notion of "creation out of nothing" have some relation?

### **George Coyne S.J.**

Fr. George Coyne SJ was born in 1933, in Baltimore, Maryland, and joined the Jesuits in 1951. He obtained his B.S. in mathematics and his licentiate in philosophy at Fordham University, New York City in 1958; he earned his PhD in astronomy in 1962 from Georgetown University and completed the licentiate in sacred theology at Woodstock College, Maryland in 1965 when he was ordained a Roman Catholic priest. Following his doctoral work he continued his astronomical research at Harvard University and at the Lunar Planetary Laboratory (LPL) of the University of Arizona (UA).

In the 1970s he served as director of the University of Arizona's Catalina Observatory, Associate Director of the Steward Observatory and the Lunar Planetary Laboratory, and as acting director of the astronomy department of University of Arizona. As director of the Vatican Observatory (1978-2006), he founded the Vatican Observatory Summer School, and the Vatican Observatory Research Group. Currently, he is President of the Vatican Observatory Foundation.

Fr. Coyne has been awarded honorary doctorate degrees from St. Peter's College, Jersey City; Loyola University Chicago; University of Padua, Italy; Jagiellonian University, Krakow, Poland; Marquette University, Milwaukee, Wisconsin; Boston College; Le Moyne College, Syracuse, New York; the College of the Holy Cross, Worcester, Massachusetts; Santa Clara University, Santa Clara, California. Also among his honors has been the naming of asteroid 14429 Coyne after him.

Dr. Coyne has been active in promoting the dialogue between science and religion and pioneered the series of conferences on "Scientific Perspectives on Divine Action." He has also been active in the continuing debate about the religious implications of scientific evolution. Fr. Coyne is a member of the International Astronomical Union, the American Astronomical Society, the Astronomical Society of the Pacific, the American Physical Society, the Optical Society of America and the Pontifical Academy of Science.

In January 2012 Fr. Coyne left the Vatican Observatory to take up a chair at Le Moyne College, Syracuse, NY, where he is teaching astronomy and developing a lecture series regarding the science and religion dialogue.

(Taken from the Vatican Observatory Webpage: <http://www.vaticanobservatory.org/about-us/emeritus-staff/75-emeritus-staff/george-v-coyne-sj/334-george-v-coyne-sj>)

