Module
Physics & Divine Action

Science Module for existing university or seminary level courses.
Drop in to a course syllabus (with modifications) in
Religious Studies
Physics
Metaphysics
Systematic Theology: Creation
1 week's assignment for 3 hours of class meeting

PHYSICS AND THE LITTLE WORLD THAT'S EVERYWHERE

As classical physics becomes supplemented with quantum physics, the
deterministic causal nexus of Isaac Newton becomes supplemented with the
indeterminate possibilities of the quantum domain. Because atoms are everywhere,
this could signal an openness and indeterminateness in the physical world that
theologians recognize as God's creation.

This module gives special attention to God's action in nature's world at the
subatomic level. Robert John Russell calls it NIODA, non-interventionist
objective, divine action.

What is NIODA? Here's the background. From 1987 through 2002 at the
invitation of Pope John Paul II, the Vatican Observatory (VO) in cooperation with
the Center for Theology and the Natural Sciences (CTNS) at the Graduate
Theological Union in Berkeley, California, addressed these and many other questions in theology, philosophy, and science. International panels selected by the VO-CTNS research project drew from a global pool of leading natural scientists, philosophers, theologians, and ethicists. Occasionally the discussion oriented itself around the pros and cons of one central hypothesis: Non-Interventionist Objective Divine Action (NIOADA) which claimed that God acts objectively at the sub-atomic level—and because atoms are everywhere so also is divine action everywhere—without breaking any laws of nature. This accounts for both general and special providence in a manner that makes theology and physics consonant. By debating this hypothesis, a large number of issues raised in the dialogue shared by Science and Theology come to the fore.

DLO (Desired Learning Outcomes)

Added to the set of DLOs for the entire course. The student should also demonstrate...
1. knowledge of the contrast between classical mechanics and quantum mechanics;
2. ability to describe issues at stake;
3. grasp of the proposal for NIOADA.

REQUIRED READING


RECOMMENDED READING

Peters, Ted, and Carl Peterson, "The Higgs Boson" in Theology and Science.
http://www.tandfonline.com/doi/pdf/10.1080/14746700.2013.809948#.UpVWD-7TkII


This comprehensive volume is valuable for almost all modules.

OHRS 34 Russell, "Quantum Physics..."
OHRS 10 Wegter-McNelly; "Fundamental Physics and Religion"
OHRS 44 Ellis, "Physics, Complexity, and the Science-Religion Debate"
OHRS 35 Thomas Tracy, "Theologies of divine action"
OHRS 9 Bernard Carr, "Cosmology and Religion"