

MAR12-2011-005671

Abstract for an Invited Paper
for the MAR12 Meeting of
the American Physical Society

Quantum Information in Non-physics Departments at Liberal Arts Colleges

MICHAEL WESTMORELAND, Denison University

Quantum information and quantum computing have changed our thinking about the basic concepts of quantum physics. These fields have also introduced exciting new applications of quantum mechanics such as quantum cryptography and non-interactive measurement. It is standard to teach such topics only to advanced physics majors who have completed coursework in quantum mechanics. Recent encounters with teaching quantum cryptography to non-majors and a bout of textbook-writing suggest strategies for teaching this interesting material to those without the standard quantum mechanics background. This talk will share some of those strategies.