



UNIVERSITY OF CRETE
DEPARTMENT OF PHYSICS



CCN

CRETE CENTER FOR
QUANTUM COMPLEXITY
AND NANOTECHNOLOGY

ΓΕΝΙΚΟ ΣΕΜΙΝΑΡΙΟ ΤΜΗΜΑΤΟΣ ΦΥΣΙΚΗΣ

PHYSICS COLLOQUIUM

Thursday, 27 March 2014

17:00 -18:00

3rd Floor Seminar Room

“The BICEP result and what it tells us”

Prof. Richard Woodard

Department of Physics, University of Florida

Abstract

On March 17 the BICEP collaboration announced the detection of B-mode polarization in the cosmic microwave background which is consistent with the signal expected from the gravitational waves predicted to occur from the epoch of primordial inflation. I will give a nontechnical explanation of what BICEP has detected and why they believe it to be due to primordial gravitons. I will also explain what inflation is, the other evidence for it, how the BICEP result compares with other data sets, and what the BICEP result tells us about fundamental theory, assuming it is correct. **DISCLAIMER:** I am not an astronomer, nor was I involved in the BICEP analysis.