

Physics 002B

Assignment #2

Quantum Theory in Search of Reality

Wednesday January 25

Seminar Topic: Beginning Thoughts about QM

Seminar Break: Boccio

Readings for presentations:

Boccio ---- Chapter_02 Quantum Thoughts

Boccio ---- Chapter_03 Sections 3.1 Quantum Ideas

Readings for alternative views and other background:

Gribbin --- Chapter 03 and Chapter 04

Lindley --- Intermission

Seminar will consist of:

- (1) Presentations by students**
- (2) Mini-Lectures by instructor to help with the understanding of more difficult ideas as they arise during the seminar**

Each student should become an **expert** in their own part of the readings so that their presentation(using a Document camera) can be both **informative and interesting**.

Everyone should do **ALL** the readings so everyone can **assume** that other seminar participants have at least read the material they will be presenting, even though they may not have fully understood it and/or put it into a general context.

The **goal** of each seminar is that everyone **fully understand** all the readings for each week, including all of the **implications and ramifications**.

Presentations:

Boccio --- Chapters 02 and 03

- Section 2.1 (pages 75-77) _ Fishman_
Up to **"spooky action at a distance"**
- Section 2.1(pages 77-78) _Umana-Gomez_
Up to **which we cannot really do**
- Section 2.1(pages 79-80) _Fortuna_
Up to **necessary in order to understand this!!!**
- Section 2.1(pages 81-82) _Parikh_
Up to **about other phenomena in the microworld**
- Section 2.1(pages 82-84) _Tomlinson_
Up to **occur in the lifetime of the universe**
- Section 2.1(pages 84-86) _Corbin_
Up to **universe revealed by classical physics**
- Section 2.1(pages 87-90) _Brambila-Olmedo_
Up to **one central feature of quantum theory.**
- Section 2.1.1(pages 90-95) _Montoya_
The Tale of 2 Gloves
- Section 3.1(pages 97-100) _Liu_
Up to **fundamental puzzle of the quantum world**
- Section 3.1(pages 101-103) _Eisenberg_
Up to **disrupts(randomizes) the other**
- Section 3.1(pages 103-106) _Eisler_
Up to **happening and need to be retrained!!!**
- Section 3.1(pages 106-110) _Englehart_
Up to **the quantum world in another way**