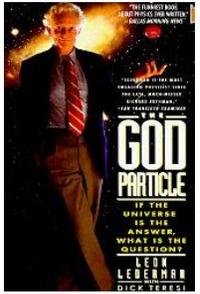
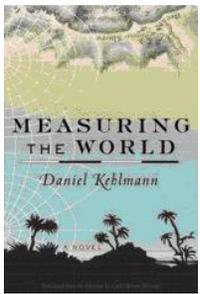
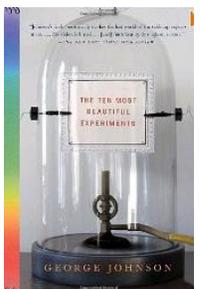
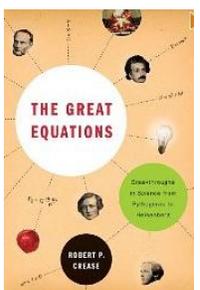
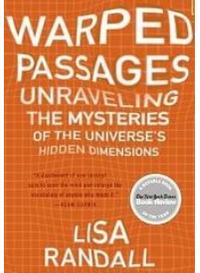


Science Seminar (4-6 credits) – FWS 2010-11

We will read some of these in fall, some in winter, and new ones (TBD) in spring.

<p><u>The God Particle</u>, by Leon Lederman and Dick Teresi</p> <p>The "God particle" of the title is Lederman's term for what other physicists call a Higgs boson--a hypothetical particle that might hold a key to the subatomic world of quarks and leptons. To find out if a Higgs boson indeed exists, this Nobel laureate in physics conceived of the Superconducting Super Collider, which, if constructed, would be the world's most powerful particle accelerator. Writing with Teresi, ... Lederman first surveys moments of discovery from Newton to Einstein in a breezy, folksy style</p> <p>(Mariner, 2006) ISBN 978-0618711680</p>	
<p><u>Measuring the World</u>, by Daniel Kehlmann</p> <p>A yearlong bestseller in Germany, described as an "intellectual comedy."</p> <p>Loosely based on the lives of 19th-century explorer Alexander von Humboldt and a contemporary, mathematician Carl Friedrich Gauss, Kehlmann's novel, a German bestseller widely heralded as an exemplar of "new" German fiction, injects musty history with shots of whimsy and irony.</p> <p>(Vintage, 2007) ISBN 978-0307277398</p>	
<p><u>The Ten Most Beautiful Experiments</u>, by George Johnson</p> <p>Award-winning science writer Johnson (<i>A Fire in the Mind</i>; <i>Strange Beauty</i>) calls readers away from the industrialized mega-scale of modern science (which requires multimillion-dollar equipment and teams of scientists) to appreciate 10 historic experiments whose elegant simplicity revealed key features of our bodies and our world.</p> <p>(Vintage reprint, 2009) ISBN 978-1400034239</p>	
<p><u>The Great Equations: Breakthroughs in Science from Pythagoras to Heisenberg</u>, by Robert Crease</p> <p>More than just a celebration of the great equations . . . [Crease] shows how an equation not only affects science and math but also transforms the thinking of all people. (Dick Teresi)</p> <p>Wry, probing, philosophically inclined. (Charles C. Mann)</p> <p>(Norton, 2010) ISBN 978-0393337938</p>	
<p><u>Warped Passages</u>, by Lisa Randall</p> <p>Harvard physicist Randall does a very nice job of explaining—often deftly through the use of creative analogies—how our universe may have many unseen dimensions ... Randall works hard to make her astoundingly complex material understandable, providing a great deal of background for recent advances in string and supersymmetry theory.</p> <p>(Harper Perennial, 2006) ISBN 978-0060531096</p>	

Science Seminar (4-6 credits lower division) – FWS 2010-11

Prerequisites: Good reading, writing, and thinking skills; willingness to work in teams and use computers.

You will need to have your texts the first day of class. You must have YOUR OWN COPY in seminar each day – not library copies. You are encouraged to write notes in your margins, underline, exclamations, questions, etc. “An unmarked text is an unread text.”

In case the Bookstore does not have enough, you might want to consider ordering your texts online, or shop at Orca Books downtown, for a 10% discount (and to support our local shop).

Fall 2010: In conjunction with *Mathematical Methods for Physics*, 15 students are invited to join our seminar for 4-6 credits. See the Mathematical Methods for Physics website (soon to be linked to <http://academic.evergreen.edu/z/zita>) for more details.

We will meet Fridays from 1:00 – 3:00, and you will meet your seminar team at least one day before each class to post pre-seminar assignments. You will write two essays and four peer responses each quarter.

You will be able to interact with advanced students in physics and math. We will share our insights, ideas, and questions about the readings, and our wonder about the universe.

Contact zita@evergreen.edu for more information.

E.J. Zita, PhD, Physics