Recently the “Edge” website asked the question, “Which scientific theory is ready for retirement?” Out of many responses, some by very well known scientists, I list 34 below that might provide topics for term papers. Each is accompanied by an essay of variable length. Note that I am not endorsing the viewpoint of the articles. Your paper will need to take a critical viewpoint, and you will need to do further research; the article on its own will not be sufficient for a research paper, even if your paper is based on your objection – or agreement – with it.

David Ceperley   Feb. 2014

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To find the essays go to

http://www.edge.org/responses/what-scientific-idea-is-ready-for-retirement

and search for the author or the title in your browser. Many of the authors have written books or articles further elaborating their viewpoint (which you should at least consider consulting as one of your sources).

Some of the essays from previous years might also be term paper topics.

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Sean Carroll   Falsifiability
Hugo Mercier   Planck's Cynical View Of Scientific Change
Victoria Stodden Reproducibility
Richard Saul Wurman   Certainty. Absolute Truth. Exactitude
Max Tegmark   Infinity
Max Tegmark   Geometry
Haim Harari   The Discovery of the Higgs particle Closes a Chapter in Particle Physics
Freeman Dyson   The Collapse Of The Wave-Function
Lee Smolin   The Big Bang Was The First Moment Of Time
Lawrence M. Krauss   The Laws of Physics Are Predetermined
Samuel Barondes   Science Advances By Funerals
Melanie Swan   The Scientific Method
Gordon Kane   Our World Has Only Three Space Dimensions
Paul Steinhardt   Theories of Anything
Peter Woit  The "Naturalness" Argument  (String Theory)
Rebecca Newberger Goldstein  Science Makes Philosophy Obsolete
W. Daniel Hillis  Cause and Effect
Ed Regis  Scientists Ought to Know Everything Scientifically Knowable
Seth Lloyd  The Universe
Gregory Benford  The Intrinsic Beauty and Elegance Of Mathematics Allows It to Describe Nature.
David Deutsch  Quantum Jumps
Marcelo Gleiser  Unification
Frank Tipler  String Theory
Steve Giddings  Spacetime
Bruce Parker  Entropy
Paul Saffo  The Illusion of Scientific Progress
Amanda Gefter  The Universe
Kai Krause  The Uncertainty Principle
Eric R. Weinstein  M-theory / String Theory is the Only Game in Town
Alan Guth  The Universe Began In A State Of Extraordinarily Low Entropy
Martin Rees  We'll Never Hit Barriers To Scientific Understanding
Anton Zeilinger  There is No Reality in the Quantum World
Andrei Linde  Uniformity And Uniqueness Of The Universe
Geoffrey West  The Theory of Everything