

Class PHYS 594 001: Special Problems, CRN: 41952

"Stepping Stones in Particle Physics" also listed as "Special Problems"

instructor Prof. Yuri Kamyshev <kamyshev@utk.edu>

will be taught this semester remotely via **ZOOM**.

**Class time W and F 8:50 am -10:05 am.**

First class will be on Wednesday August 19, 2020 at 8:50 am.

Link to class ZOOM channel is provided at CANVAS

This course is a stepping stone course for Particle Physics—a very introductory course to explore the field of Particle and High-Energy Physics and prepare senior undergraduate and graduate students for more difficult higher-level graduate courses PHYS 626 and PHYS 627. It will cover several basic aspects such as special relativity, accelerator and detection methods, basics about Feynman diagrams and fundamental forces between elementary particles, as well as phenomenological particle interaction models. Related topics from Cosmology like Big Bang, Geometry of Space, Inflation, Dark Matter, etc. will be also discussed.

Class discussions will be promoted by ZOOM format. Grades will be based on Class attendance, Home Work, Individual Research Projects, and take-home Final Test.

Main textbook for this class is shown below. It is available e.g. at Amazon. You can scan at Amazon through the table of content of the book to see what topics that will be discussed in the class. Also, the book should be available through Vols Book Store. Please, try to get edition 3 of the book, since edition 2 is rather old.

### Man Textbook:

“Quarks, Leptons and the Big Bang”

(3-rd Edition) author Jonathan Allday

ISBN-13: 978-1498773119;

ISBN-10: 1498773117

