

QUANTUM FIELD THEORY I

Physics 443 - Fall Quarter, 2005 - University of Chicago

SUBJECTS OF PROJECTS

The table below summarizes the choices of project titles that have been made. Where informed ahead of time, I have tried to steer people away from topics already being considered by more than one other person. The most serious potential duplication occurs for conformal field theory. I will leave it to those of you working on similar subjects to try to address different topics or arrange to join forces in groups of up to two people. You may find that your original favorite topic, which we thought was going to be taken by someone else, is still available. In that case a quick switch is still possible; just inform me. Also please let me know if I misunderstood your topic.

Name(s)	Topic
Phil Barbeau	Coherent neutrino-nucleus scattering
Alexander Belikov	Linear and nonlinear σ model
S. Domokos and M. Fasiello	Supersymmetric quantum mechanics
Patrick Draper	Conformal invariance
C. Dvorkin and J. Vieira	Sunyaev–Zeldovich Effect
S. Farkas and P. Jindal	Conformal symmetry in quantum mech.
E. Feng and C.-L. Hung	Magnetic monopoles
D. Fustin and T. Spears	Higgs \rightarrow (lepton pair) decay
Florin Ionita	Compton scattering
Valentin Kostov	Casimir effect
Erwin Lau	Inflation
J. Royer and A. Subramaniam	Unusual statistics: parastatistics; anyons
Fabian Schmidt	Spin and statistics
Chris Scullard	Conformal invariance
Paul Spyridis	Casimir effect
Ibrahim Sulai	Birefringence of QED vacuum
Arun Thalapillil	Majorana neutrinos
Tonya Venters	Twistors
Jin Wang	Gluon jet radiation
Stephanie Wissel	Weizsacker–Williams approximation
Q. Zhang and X. Zhang	“Leapfrog” method in quantum mechanics