

1 Read Peskin and Schroeder's discussion on the relation between (anti-)commutation relations and positive energy and causality, pages 52 to 58

2 Starting with eq. 130.1 of the lecture notes, and the anti-commutation relations for ψ 's, show the commutation relations for a and b , and obtain the Hamiltonian in terms of a and b operators.

3 Solve exercise 4.3 of Peskin and Schroeder (Linear Sigma Model)

(treat items b, c and d as "stretch goals" for this list. They can be hard and time-consuming if you have no one to discuss with)

("maybe useless tip": there are solutions to P&S exercises online, they can be useful if you are curious about the Linear Sigma model but could not finish the exercise above)