

Physics 601
Dr. Dragt
Fall 2002

Reading Assignment #8:

1. Dragt
 - (a) MORE ABOUT ROTATIONS and LIE GROUPS.
 - (b) MORE NOTES ON ROTATIONS.
 - (c) Section 3.7 starting with the penultimate paragraph on page 169 through the end of the section. Don't worry about the symplectic group or what it means to be *simple*.
2. Goldstein
 - (a) Sections 4.9 and 4.10 of Chapter 4.
 - (b) Sections 5.1 through 5.4 of Chapter 5.

Problem Set 8 due Monday, 11/11/02

70. Verify that $\text{tr}[(\mathbf{u} \cdot \mathbf{J})^2] = -2\mathbf{u} \cdot \mathbf{u}$ and that $(\mathbf{u} \cdot \mathbf{J})^3 = -(\mathbf{u} \cdot \mathbf{u})(\mathbf{u} \cdot \mathbf{J})$.
71. DMNR2 (Problem 2 of Dragt MORE NOTES ON ROTATIONS).
72. DMNR3.
73. DMNR4.
74. DMNR5.
75. DMNR6.