

Homework #7 (Due date Nov. 23.)

1. Can we generate an arbitrary polarization by using one half-wave plate and one quarter wave plate from a vertically polarized light? Show the possibility by using Jones vector and matrices.
2. Problem 4.1 in the main textbook.
3. Problem 4.2 in the main textbook.
4. Zero-Order waveplates (https://www.thorlabs.com/navigation.cfm?guide_id=2397) are made of two multi-order plates. Can you discuss how to make the Zero-Order plates that has lower dependence on temperature and wavelength? Given your choice of wavelength and thickness of the wave plate, how much smaller dependence of your Zero-Order plate than Multi-order on temperature?