ECE 434 Biophotonics Project

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A Project Report on optical trapping
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$$\mathbf{F} = (\mathbf{p} \cdot \nabla)\mathbf{E} + \frac{d\mathbf{p}}{dt} \times \mathbf{B}$$

$$\mathbf{F} = \alpha \left[(\mathbf{E} \cdot \nabla)\mathbf{E} + \frac{d\mathbf{E}}{dt} \times \mathbf{B} \right]$$

$$\mathbf{F} = \alpha \left[\frac{1}{2} \nabla \mathbf{E}^2 + \frac{d}{dt}(\mathbf{E} \times \mathbf{B}) \right]$$

Want to go over time dependent perturbation theory
Then add sinusoidal perturbations
Then derive Einstein's A and B coeffs
Ultimately get Fermi's golden rule and lasers

References