

**Tom Weas: Physics**

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***Broad-band telescope for focussing femtosecond pulses in two photon absorption spectroscopy experiments***

As the intensity of the laser pulses increase, the double photon absorption increases by a power of 2, which causes a problem when trying to measure over a large range of wavelengths. We have built a telescope system that would allow us to focus the laser as a function of wavelength by using two stepper motors that are controlled by a LabVIEW VI. We also address problems that involve diffraction from a gaussian beam vs. geometrical limits.