Higher dimensions and the Naturalness Problem JULIO VIRRUETA, Stony Brook University — The discovery of the Higgs boson and the determination of its mass increases the interest in the Naturalness Problem in the Standard Model. The existence of large extra dimensions as a possible solution for the Naturalness problem is presented and the basic concepts in Kaluza-Klein compatification and brane-world theories are explained and contrasted with the current experimental data. We consider two particular kind of models: flat extra dimensions, which are highly constrained by astrophysical results, and warped extra dimensions in the Randall-Sundrum approach.