The Standard Model (SM) of particle physics currently stands as the most successful description of matter’s fundamental structure. Nevertheless, despite its great triumph, it remains an incomplete theory, as a range of unsolved questions persist. Among them, we can cite the absence of a viable Dark Matter candidate, the nature of neutrino masses, or even the smallness of the Higgs mass. In this seminar, I will first present an overview of the SM and motivate why we should look for signals of new physics. After that, I will focus into some specific extensions that include new light particles, such as the dark photon, the dark Higgs and axion-like-particles (ALPs). In each one of these scenarios I will show how we can use data from several different experiments to put bounds on the parameter space of these theories and, in certain cases, exclude particular candidates.