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Can one make objects invisible? This has been a subject of human fascination for millennia in Greek mythology, movies, science fiction etc including the legend of Perseus versus Medusa and the more recent The Invisible Man, The Invisible Woman, Star Trek and Harry Potter, among many others. In the last decade or so there has been several scientific proposals to achieve invisibility. We will introduce some of these in a non-technical fashion concentrating in the so-called “transformation optics” that have received the most attention in the scientific literature. The advent of “metamaterials”, that is materials that have properties usually not found in nature, has been made possible to make experimental progress in achieving cloaking. We will also describe some of this progress in the lecture.

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