



Spectral control of broadband light through random media by wavefront shaping

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A random medium can serve as a controllable arbitrary spectral filter with spectral resolution determined by the inverse of the interaction time of the light in the medium. We use wavefront shaping to implement an arbitrary spectral response at a particular point in the scattered field. We experimentally demonstrate this technique by selecting either a narrow band or dual bands with a width of 5.5nm each.

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