

Prep guide – Spherical waves

Big picture goal – To find a wave solution that represents radiation traveling spherically outwards from a point source.

1) We construct our spherical wave solution by guessing a form for the corresponding vector potential and working from there. Once we have \vec{B} we have the option of using a trick to obtain \vec{E} directly from \vec{B} without making reference to the potentials. What was that trick?

2) The fields in a spherical wave have several components, with varying dependences on r . How do we interpret these different terms, physically?