Seismic (and radar) sources are commonly idealized as point sources due to their small spatial extent relative to generated wavelengths. The acoustic isotropic point radiator is inadequate as a model of wave generation and propagation for sources that are known to exhibit directivity. Therefore, accurate modeling of wave-fields must include energy source representations (i.e., inhomogeneous term in respective PDEs) generating anisotropic radiation patterns. Such seismic sources can be modeled as linear combinations of multipole point-sources, depending on the source anisotropy. In this talk we present a method for discretizing multipole sources in a finite difference setting, an extension of the moment matching conditions developed for the Dirac delta function in other applications. We conjecture that a certain number of moment conditions are necessary for to preserve the convergence rates of staggered grid finite difference methods on a class of hyperbolic PDEs. We provide some numerical evidence supporting our claim, demonstrating the accuracy of our singular source approximation, i.e., we show that convergence rates of finite difference solvers are preserved away from source location if appropriate source discretization is used.