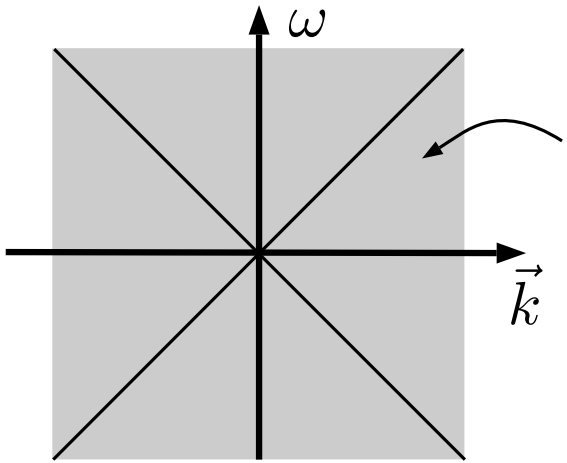
$\widehat{\frac{1}{t}\delta(\xi^2)}(p)$

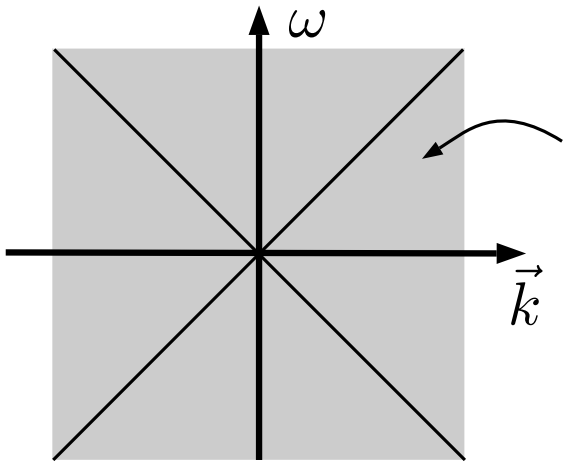
odd




$$\frac{\mathrm{i}}{k}(\log|\omega-k|-\log|\omega+k|)$$

$\widehat{\frac{1}{t^2}\delta(\xi^2)}(p)$

even




$$\frac{1}{k}((\omega-k)\log|\omega-k|-(\omega+k)\log|\omega+k|)$$