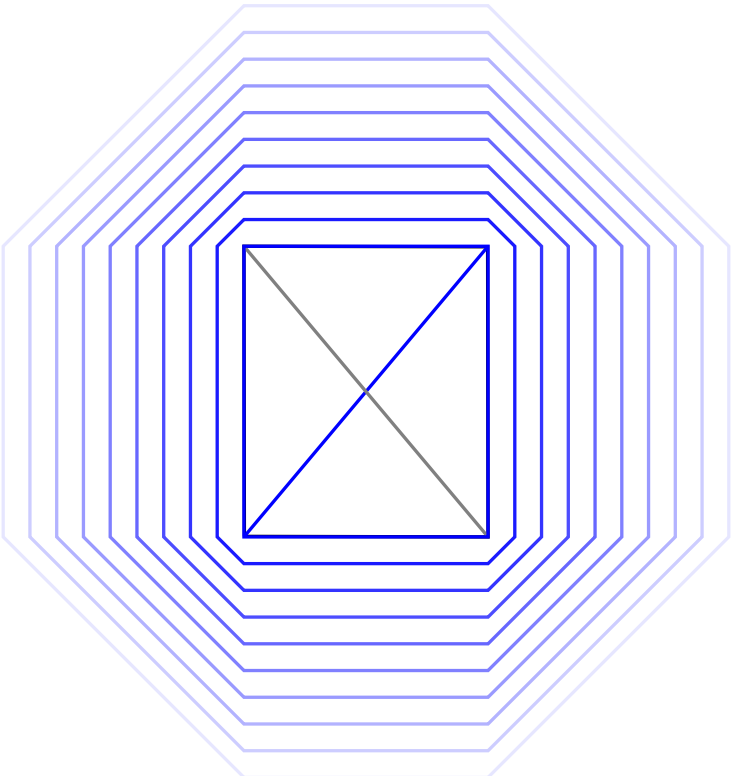

$\theta = 50.0^o$