



A somewhat [surprising request on X validated](#) about the inverse cdf representation of a [warped Cauchy distribution](#). I had not come across this distribution, but its density being



means that it is the superposition of shifted Cauchys on the unit circle (with nice complex representations). As such, it is easily simulated by re-shifting a Cauchy back to  $(-\pi, \pi)$ , i.e. using the inverse transform