

$$\left((X+Y)_{\alpha}, (X+Y)_{1-\alpha}\right) = (-2.769, 2.7$$

Correlation: 0
 X: (-2.018, 1.962)
 Y: (-1.939, 1.91)

$$(X_{\alpha} + Y_{\alpha}, X_{1-\alpha} + Y_{1-\alpha}) = (-3.957, 3.8$$

