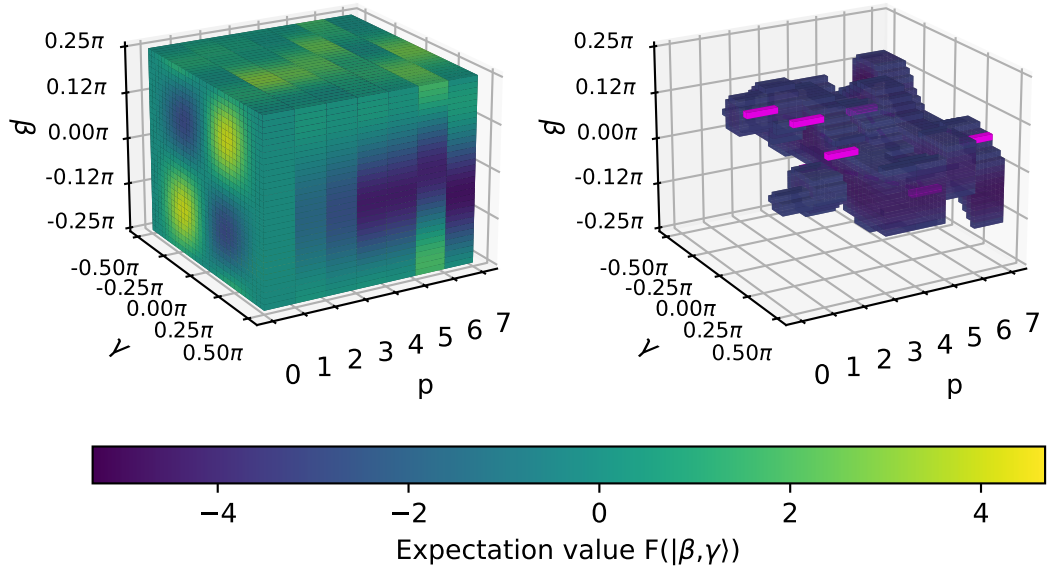


# Expectation Values for QAOA with increasing p for a 12 qubit problem instance, parameters optimized using the COBYLA method



**Best  $\beta$ :** [-0.5834341333098656, -0.5101826450051835, -0.24213423571343623, 0.20132340860736017, 0.06998294162137227, -0.14674700968279072, -0.2280188216315172]  $\{\backslash \gamma\}$ : [0.38761918733458695, 0.7851565421439811, 0.8325252020797705, -0.6308668920631881, 1.4455855038647645, -0.9671547002791816, 1.266771231286207]