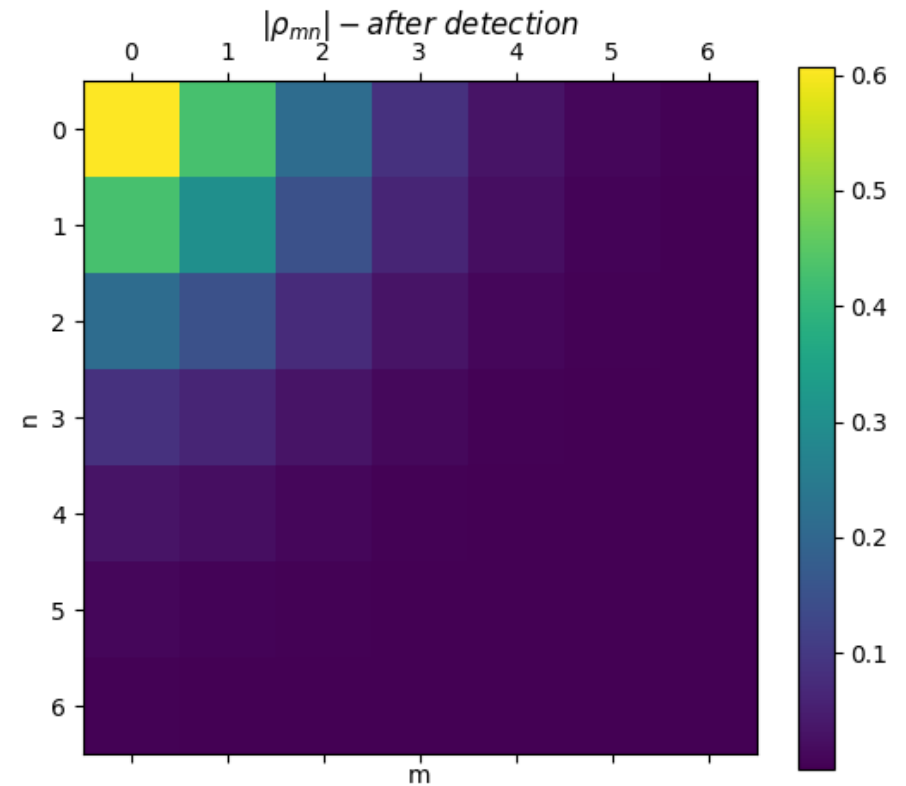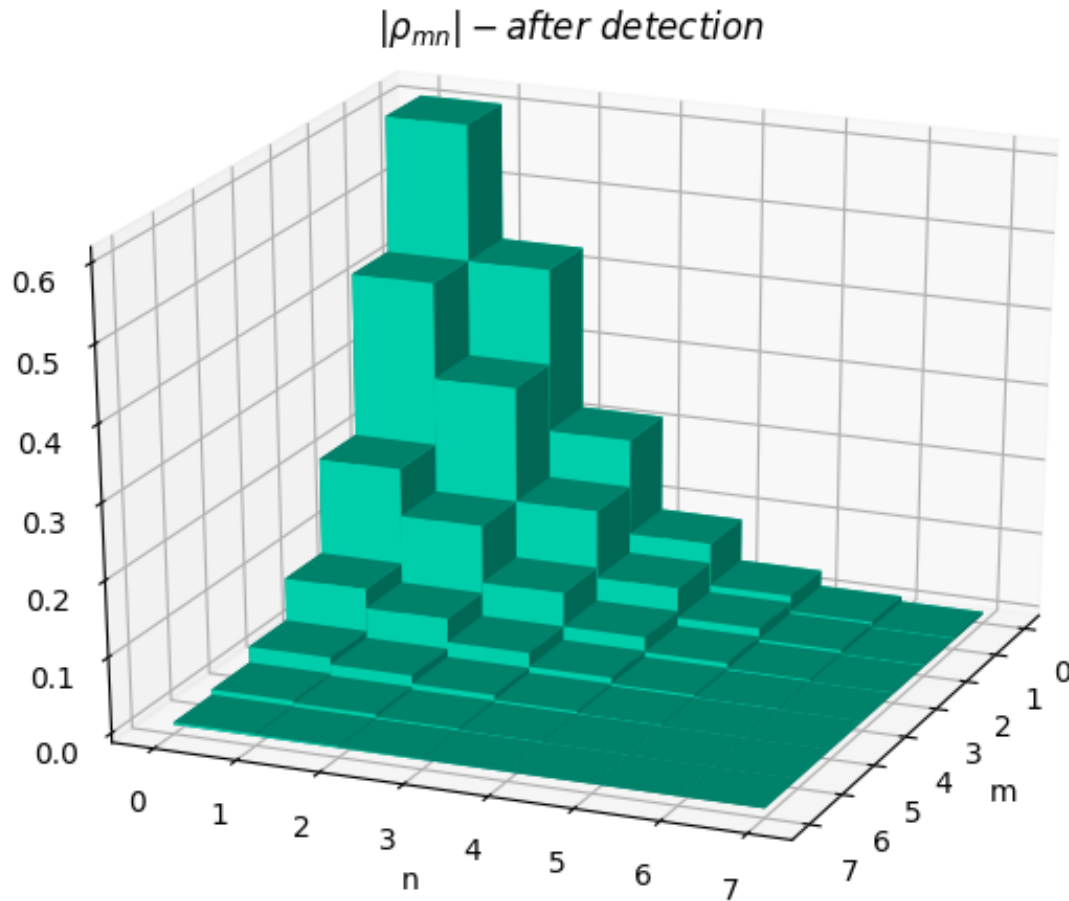# 1) Two coherent states as an input.
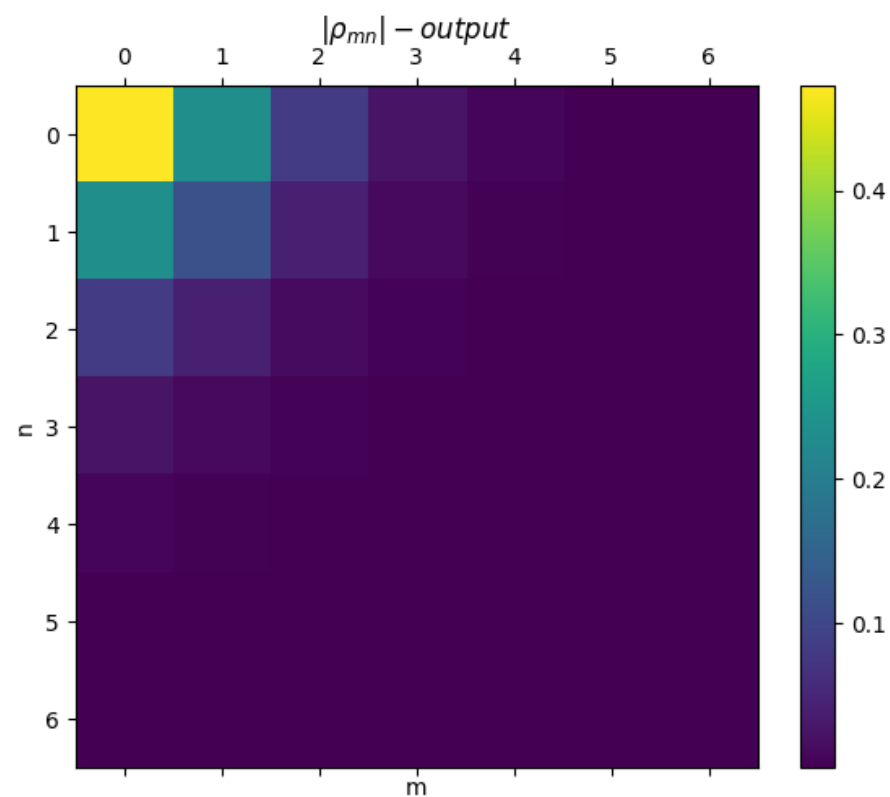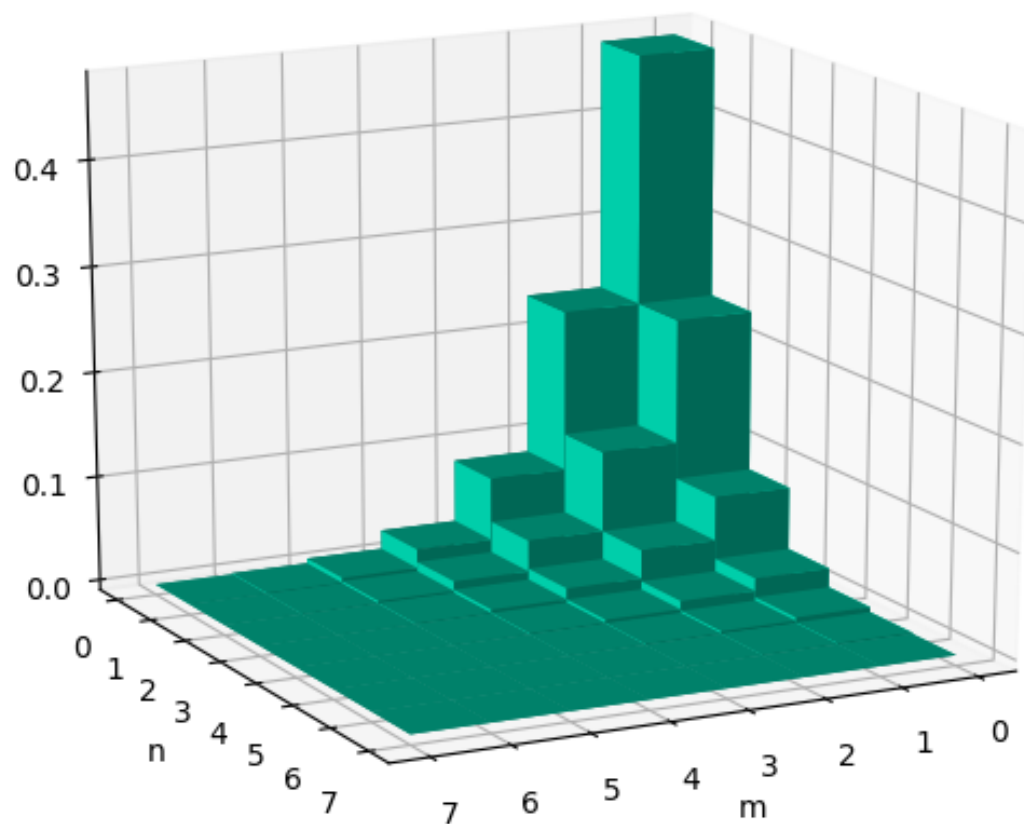
Everywhere only one
detector is clicked.
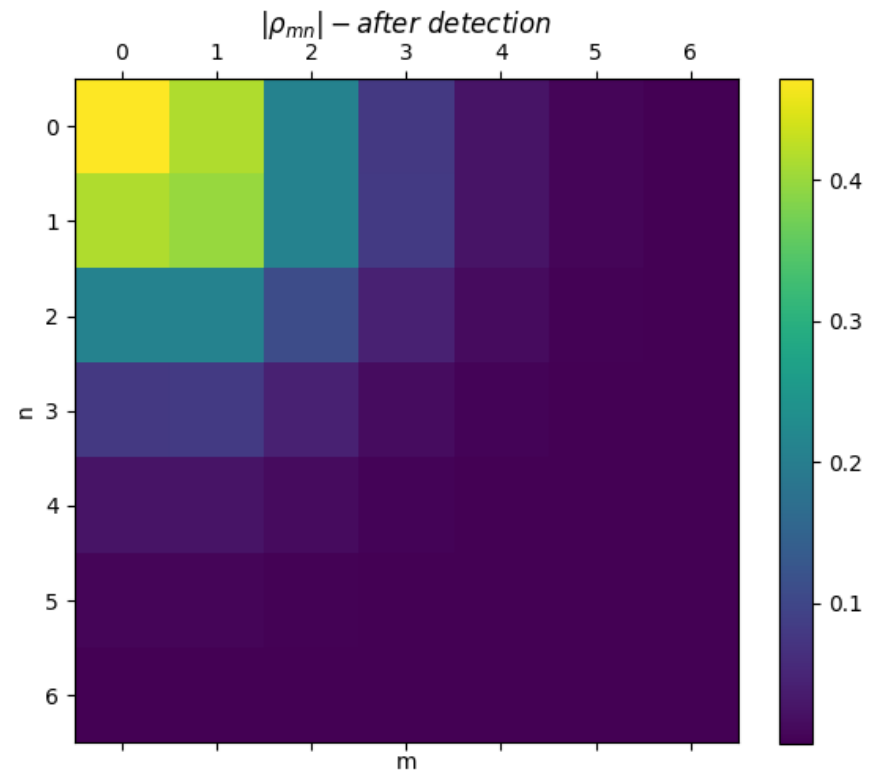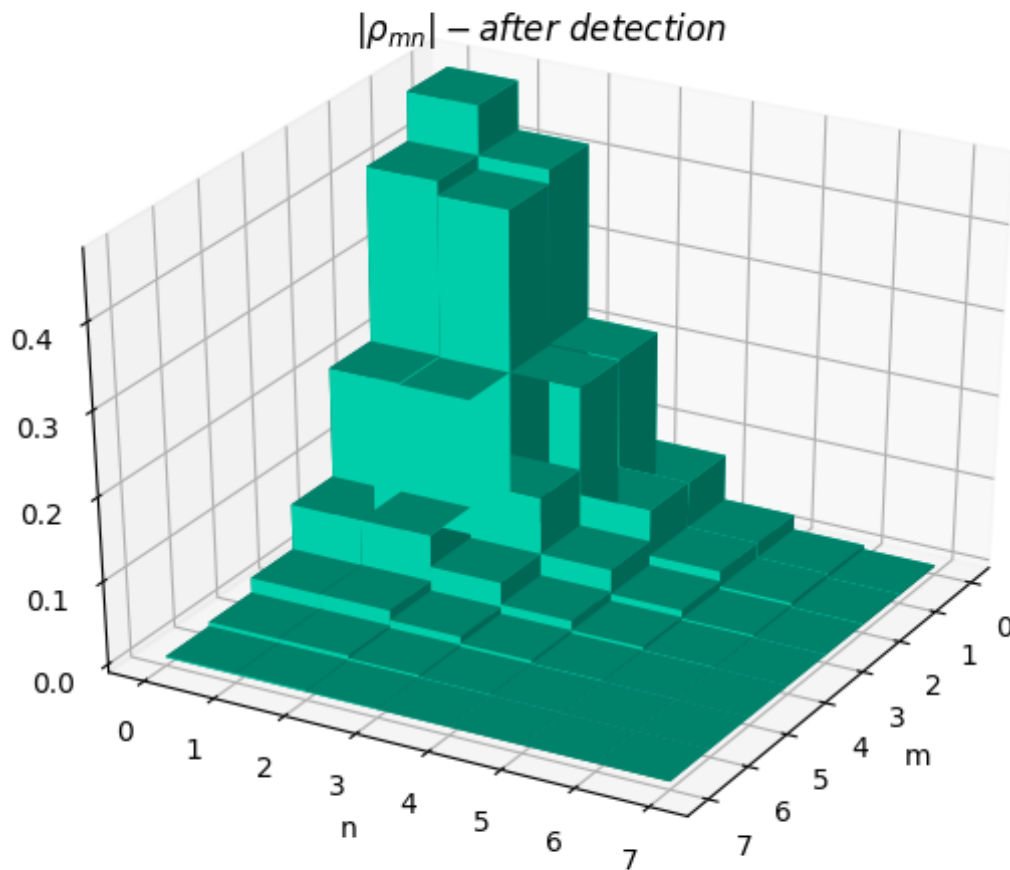
One channel traced dens.
matrix after detection.

One channel traced dens. matrix after last beam splitter.

$|\rho_{mn}| - output$

2) Coherent state and a single photon as an input.

One channel traced dens.
matrix after detection.

$|\rho_{mn}|$ − after detection

One channel traced dens. matrix after last beam splitter.

$|\rho_{mn}| - output$

$|\rho_{mn}| - output$