

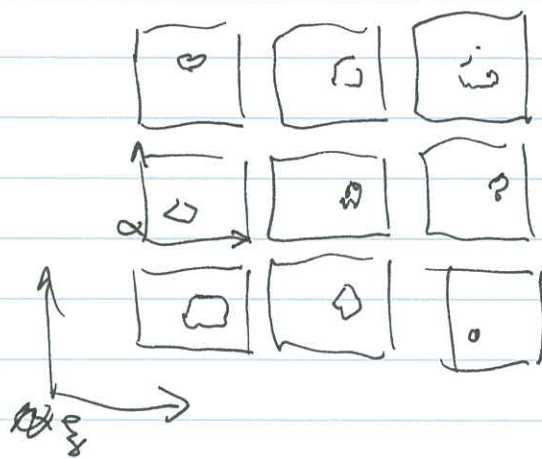
# Squeezed states as a frame

- Squeezing transform preserves phase space area, so  $\langle \hat{a}^\dagger \hat{a} \rangle$  and  $\langle \hat{a} \hat{a}^\dagger \rangle$  and  $S$  do are the same. Least-norm expansion is well defined (but not necessarily unique)

- There is an idea of "center of squeezing mass", point in  $\xi$  plane where  $\| |\psi\rangle_\xi \|$  has com.

- For small multiplex plots, it is good for phase space to be the same in each small multiple.  $\xi_{com}$  is the obvious choice for "coherent" states.

- obvious first question: what is the least-norm expansion of a coherent state over squeezed states?



in least-norm expansion, components of  $|\psi\rangle$  that are expanded over  $|\alpha, \xi\rangle$ .