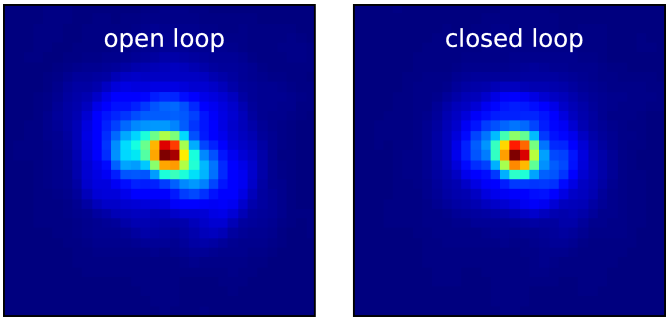
open loop
closed loop