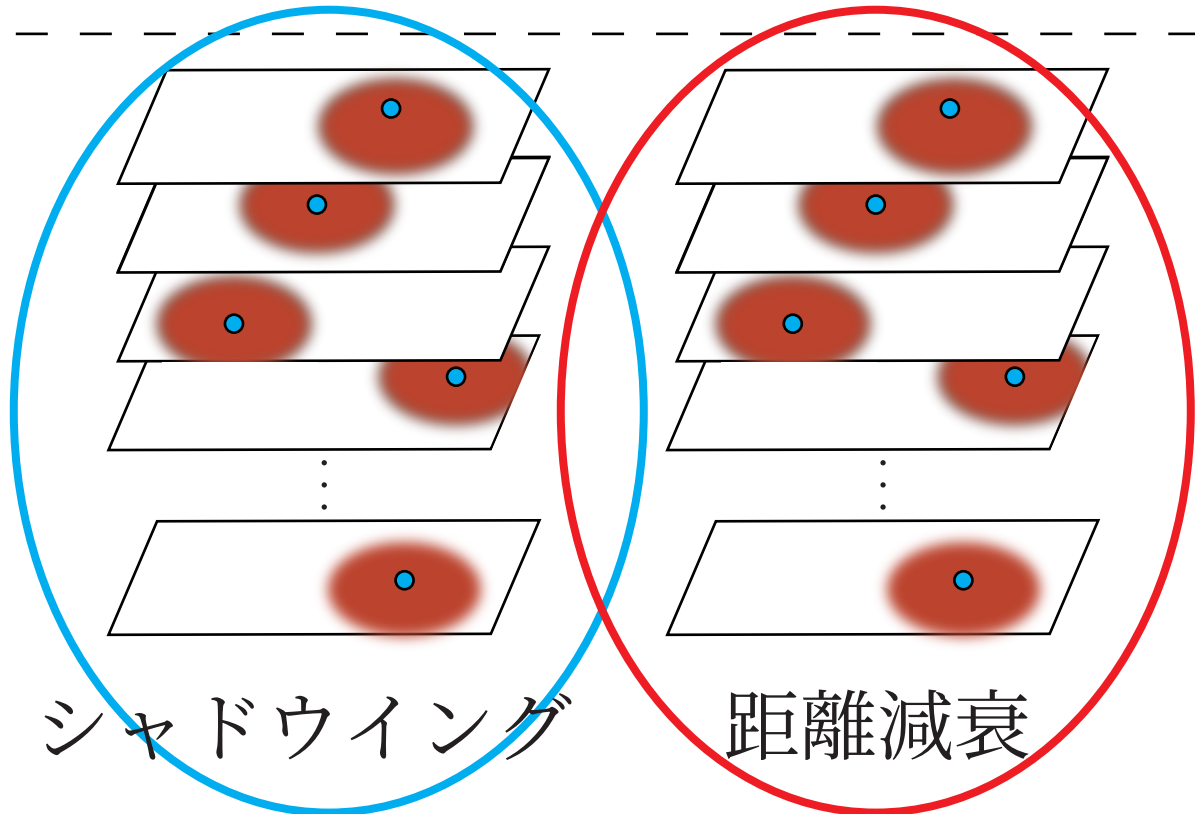
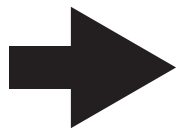
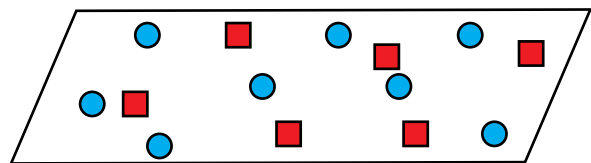


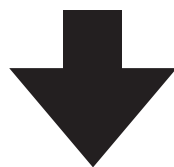
● AP
■ ユーザ



シャドウイング

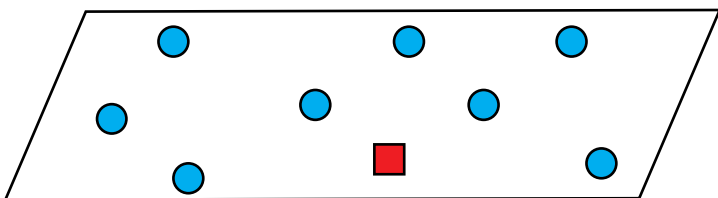
距離減衰

CP 分解

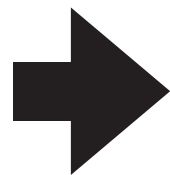
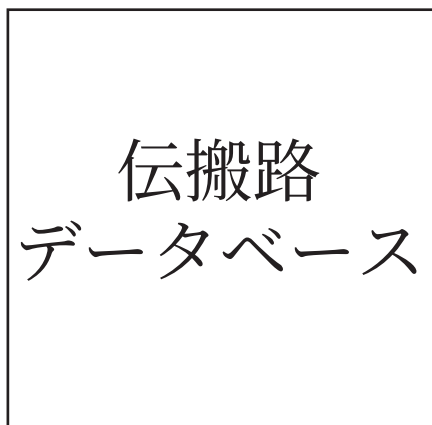
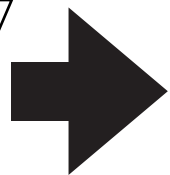


$\mathcal{G}; U, V, W$

● AP



新規ユーザー k



$\tilde{\beta}_{1,k}, \tilde{\beta}_{2,k}, \dots, \tilde{\beta}_{M,k}$