**subprocedures**

DoAE: direction of arrival estimation
UID  : user identification
DoAT: DoA tracking
BF   : beam forming
SF   : spatial filtering

**variables**

DoA  : direction of arrival
$\mathbf{i}$    : identification sequence
$\mathbf{X}$, $\mathbf{x}$ : signal model
$\mathrm{DoA_T}$: DoAs up to date
$\hat{x}(t)$  : fitered signal