

<i>Notation</i>	<i>Meaning</i>
o	The object being monitored.
M	The map of locations.
$I = [1..T]$	Time interval.
Δ	Time between two consecutive time points.
r_j, \mathcal{R}	Generic reader, set of all the readers.
R	Generic set of readers ($R \subseteq \mathcal{R}$).
R_t	Set of readers that detected o at time t .
$D = R_1, \dots, R_T$	Detection-sequence (d-sequence) over I .
L_j, \mathcal{L}	Generic location, set of all the locations.
c, c_j	Generic cells composing the grid over M .
$Cells(L)$	The cells intersecting location L .
$Cells(R)$	The cells covered by the readers in R .
$d_{\min}(c_i, c_j)$	Minimum distance between cells c_i and c_j .
v_{\max}	Maximum speed of object o .
p_t	Posterior PDF over \mathcal{L} for time t .
p_1, \dots, p_T	Probabilistic trajectory (p-trajectory).
$C(t)$	Possible positions for o at time t
$p_t(c)$	Posterior probability that o is at c at time t .
$p_t(L)$	Posterior probability that o is at L at time t .
$p_t^{\text{fw}}(c)$	Contribution to $p_t(c)$ resulting from the forward phase (<i>forward probability</i>).
$p_t^{\text{bw}}(c)$	Contribution to $p_t(c)$ resulting from the backward phase (<i>backward probability</i>).
$h(R_t c)$	Probability that an object at cell c is detected by the readers in R_t (<i>likelihood</i>).
$p^{\text{mov}}(v \geq x)$	Probability that o 's speed is at least x .