

Graph of temporal displacements:

Matrix representation of graph:

Indirect observation of velocity between  $t_2$  &  $t_3$

Displacement ( $d_{0,4}$ )

$t_0$   $t_1$   $t_2$   $t_3$   $t_4$

Image acquisition

16-day interval

Timeline

$$\mathbf{A}_G = \begin{matrix} & \begin{matrix} t_0 & t_1 & t_2 & t_3 & t_4 \end{matrix} \\ \begin{matrix} t_0 \\ t_1 \\ t_2 \\ t_3 \\ t_4 \end{matrix} & \begin{pmatrix} 0 & 1 & 1 & 0 & 1 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & 0 & 0 \end{pmatrix} \end{matrix}$$

Direct observation of velocity between  $t_2$  &  $t_3$