theta_vk_i : a $3 \times K$ matrix where the k^{th} column is the axis-angle representation of the groundtruth value of $\mathbf{C}_{v_k i}$. Use this vector as $\boldsymbol{\psi}_k$ in (3.3c) to recover the rotation matrix.

r_i_vk_i : a $3 \times K$ matrix where the k^{th} column is the groundtruth value of $\mathbf{r}_i^{v_k i}$ [m]

t : a $1 \times K$ matrix of time values $t(k)$ [s]

w_vk_vk_i : a $3 \times K$ matrix where the k^{th} column is the measured rotational velocity, $\boldsymbol{\omega}_{v_k}^{v_k i}$ [rad/s]

w_var : a 3×1 matrix of the computed variances (based on groundtruth) of the rotational speeds [rad^2/s^2]

v_vk_vk_i : a $3 \times K$ matrix where the k^{th} column is the measured translational velocity, $\mathbf{v}_{v_k}^{v_k, i}$ [m/s]

v_var : a 3×1 matrix of the computed variances (based on groundtruth) of the translational speeds [m^2/s^2]

rho_i_pj_i : a 3×20 matrix where the j^{th} column is the position of feature j, $\boldsymbol{\rho}_i^{p_j i}$ [m]

y_k_j : a $4 \times K \times 20$ array of observations, $\mathbf{y}_k^j$ [pixels]. All components of `y_k_j(:,k,j)` will be -1 if the observation is invalid.

y_var : a 4×1 matrix of the computed variances (based on groundtruth) of the stereo measurements [pixels^2]

C_c_v : a 3×3 matrix giving the rotation from the vehicle frame to the camera frame, $\mathbf{C}_{cv}$

rho_v_c_v : a 3×1 matrix giving the translation from the vehicle frame to the camera frame, $\boldsymbol{\rho}_v^{cv}$ [m]

fu : the stereo camera's horizontal focal length, f_u [pixels]

fv : the stereo camera's vertical focal length, f_v [pixels]

cu : the stereo camera's horizontal optical center, c_u [pixels]

cv : the stereo camera's vertical optical center, c_v [pixels]

b : the stereo camera baseline, b [m]