Kalman Filter 2D

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The equation

We have been given so far:
$Q = \begin{bmatrix} 10^{-4} & 2 \times 10^{-5} \\ 2 \times 10^{-5} & 10^{-4} \end{bmatrix}$
$R = \begin{bmatrix} 10^{-2} & 5 \times 10^{-3} \\ 5 \times 10^{-3} & 2 \times 10^{-2} \end{bmatrix}$
A, B, H will be the identity matrix

So the update equations for this system would be:

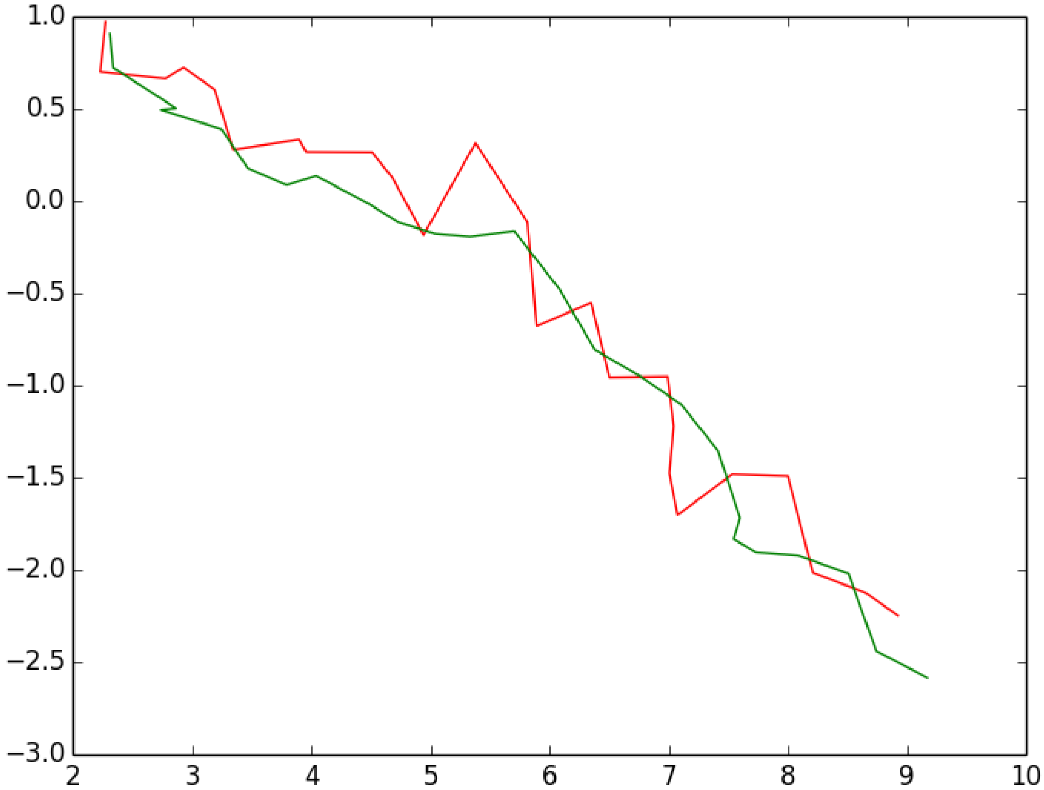
Time update:
$\hat{x}_k^- = A \begin{bmatrix} \hat{x}_{1_{k-1}} \\ \hat{x}_{2_{k-1}} \end{bmatrix} + B \begin{bmatrix} u_{1_{k-1}} \\ u_{2_{k-1}} \end{bmatrix}$
$P_k^- = AP_{k-1}A^T + Q$

To clarify, A, B, H should be Identity matrix of dimension 2×2, although I am unsure about dimension for H
$\hat{x}_k^-, u$ should be a $2x1$ matrix
I am unsure about dimensions for P_k^-, but whatever the dimension is after computation should be correct

Measurement update:
$\hat{x}_k = \hat{x}_k^- + K_k(\begin{bmatrix} z_{1_k} \\ z_{2_k} \end{bmatrix} - H\hat{x}_k^-)$
$K_k = \frac{P_k^- H^T}{HP_k^- H^T + R}$

$P_k = (I - K_k H)P_k^-$

The Output:



The Image illustrates the predicted values in the Green and the observation values in Red.

Thank you