Correction to "Efficient Estimation of the Parameter Path in Unstable Time Series Models" by Ulrich K. Müller and Philippe-Emmanuel Petalas, Review of Economic Studies 77, 1508–1539

The algorithm given on page 1513 only corresponds to what is derived in Theorem 5 when all parameters are assumed time varying, that is if $p = k$. For $p < k$, step 1 should instead read

1. For $t = 1, \cdots, T$, let $\tilde{y}_t$ be the first $p$ elements of $\hat{H}\hat{V}^{-1}s_t(\hat{\theta})$ and $x_t = \hat{S}_\beta \tilde{y}_t$, where $\hat{S}_\beta$ is the inverse of the $p \times p$ upper-left block of $\hat{H}\hat{V}^{-1}\hat{H} = \hat{S}^{-1}$.

and the displayed variance formula on the same page should be amended to

$$
\Omega_t = T^{-1}\hat{S}_{pp} + \sum_{i=0}^{10} w_i(T^{-1}\hat{S}_\beta \kappa_t(c_i) + (\hat{\beta}_{i,t} - \hat{\beta}_t)(\hat{\beta}_{i,t} - \hat{\beta}_t)')
$$

$$
\kappa_t(c) = \frac{c(1 + e^{2c} + e^{2ct/T} + e^{2c(1-t/T)})}{2e^{2c} - 2} - 1
$$

where $\hat{S}_{pp}$ is the upper left $p \times p$ block of $\hat{S} = \hat{H}^{-1}\hat{V}\hat{H}^{-1}$ and $\kappa_t(0) = 0$.

The definition of $\hat{S}_\beta$ in the amended step 1. above is the correct one also in the context of the discussion on page 1527.