



Trace plots of the parameters of the static version of the downscaler model with  $\beta_1(\mathbf{s}) = 0$  for August 11, 2001: (a)  $\beta_0$ ; (b)  $\beta_1$ ; (c)  $A_{11}$ ; (d)  $\tau^2$ . (e) Histogram of the sampled values for  $\phi_0$  obtained in the MCMC chain. In panels (a) through (d), the horizontal black line indicates the posterior mean.