

## 4.1 Model checking plots for components without statistically significant discrepancies

### 4.1.1 Component 1 : A linearly increasing function

No discrepancies between the prior and posterior of this component have been detected

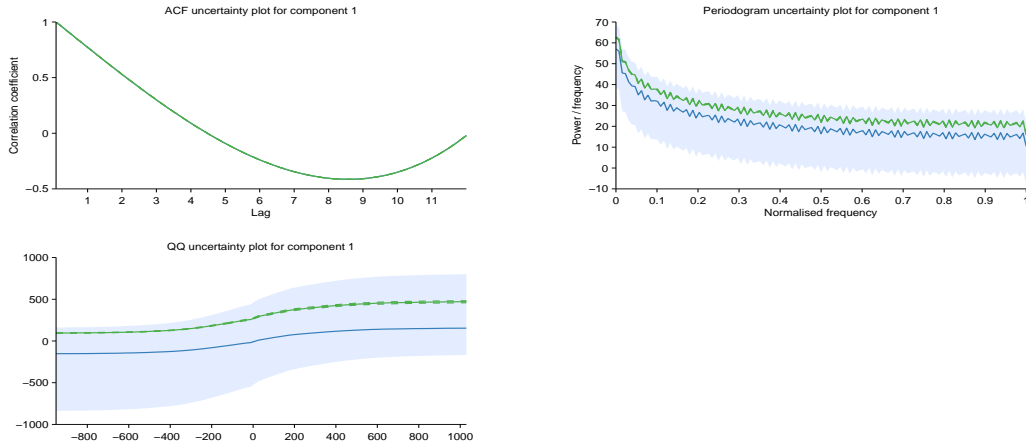


Figure 14: ACF (top left), periodogram (top right) and quantile-quantile (bottom left) uncertainty plots. The blue line and shading are the pointwise mean and 90% confidence interval of the plots under the prior distribution for component 1. The green line and green dashed lines are the corresponding quantities under the posterior.

### 4.1.2 Component 2 : An approximately periodic function with a period of 1.0 years and with linearly increasing amplitude

No discrepancies between the prior and posterior of this component have been detected

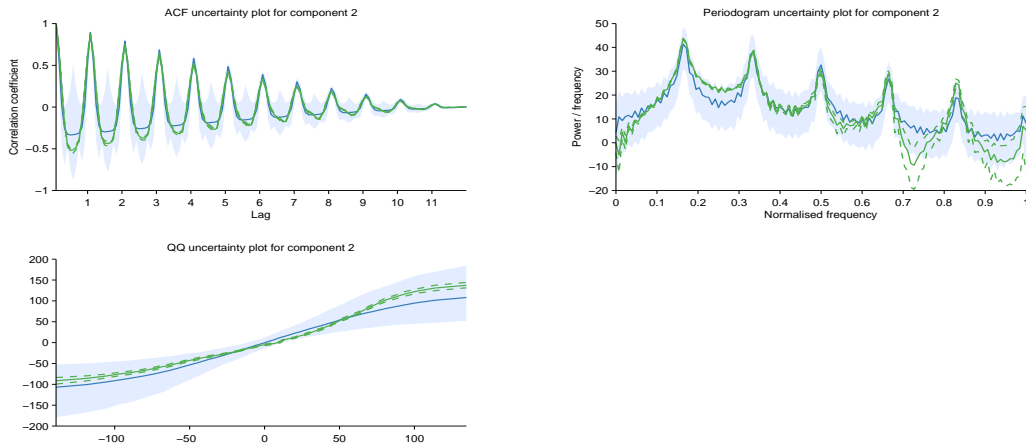


Figure 15: ACF (top left), periodogram (top right) and quantile-quantile (bottom left) uncertainty plots. The blue line and shading are the pointwise mean and 90% confidence interval of the plots under the prior distribution for component 2. The green line and green dashed lines are the corresponding quantities under the posterior.

### 4.1.3 Component 3 : A smooth function

No discrepancies between the prior and posterior of this component have been detected