

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

This component is approximately periodic with a period of 1.0 years and varying amplitude. Across periods the shape of this function varies very smoothly. The amplitude of the function increases approximately linearly. The shape of this function within each period has a typical lengthscale of 6.0 weeks.

This component explains 89.9% of the residual variance; this increases the total variance explained from 85.4% to 98.5%. The addition of this component reduces the cross validated MAE by 63.45% from 34.03 to 12.44.

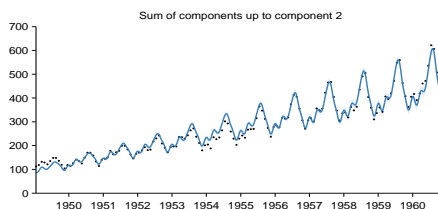
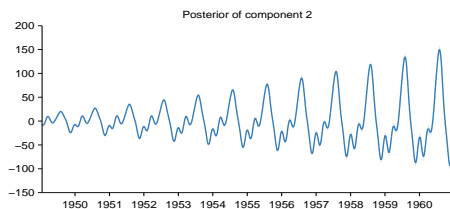


Figure 4: Pointwise posterior of component 2 (left) and the posterior of the cumulative sum of components with data (right)

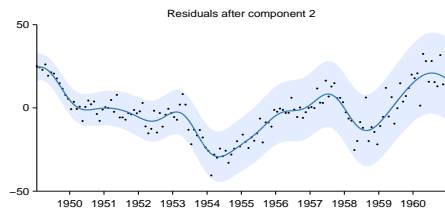


Figure 5: Pointwise posterior of residuals after adding component 2