## **Chapter 3 Linear models for regression**

## 3.3 Bayesian Linear Regression

## 3.3.2 Predictive distribution

• (pp.158) "If we used localized basis functions such as Gaussians, then in regions away from the basis function centres, the contribution from the second term in the predictive variance (3.59) will go to zero, leaving only the noise contribution  $\beta^{-1}$ . Thus, the model becomes very confident in its predictions when extrapolating outside the region occupied by the basis functions, which is generally an undesirable behaviour. This problem can be avoided by adopting an alternative Bayesian approach to regression known as a Gaussian process."

## 3.3.3 Equivalent kernel

! Not sure I understand the essense of this section.