



**FIGURE 5.1.** The top left panel shows a piecewise constant function fit to some artificial data. The broken vertical lines indicate the positions of the two knots  $\xi_1$  and  $\xi_2$ . The blue curve represents the true function, from which the data were generated with Gaussian noise. The remaining two panels show piecewise linear functions fit to the same data—the top right unrestricted, and the lower left restricted to be continuous at the knots. The lower right panel shows a piecewise-