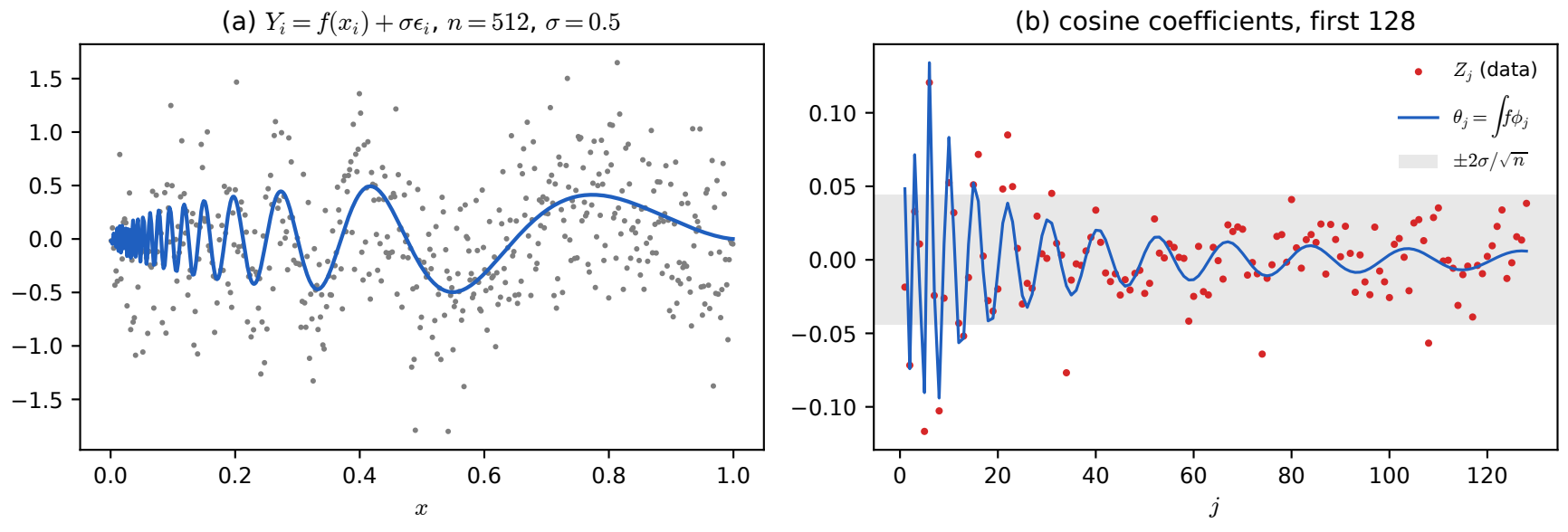

(a) $Y_i = f(x_i) + \sigma\epsilon_i$, $n = 512$, $\sigma = 0.5$
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
0.0
0.2
0.4
0.6
0.8
1.0
x
(b) cosine coefficients, first 128
Z_j (data)
$\theta_j = \int f\phi_j$
$\pm 2\sigma/\sqrt{n}$
0.10
0.05
0.00
−0.05
−0.10
0
20
40
60
80
100
120
j