SEM: notes

HOMs Class
Amik St-Cyr

How good is equidistant Lagrange interpolation?

$$f(x) = \frac{1}{1 + 25x^2} \qquad \text{over} \qquad -1 \leq x \leq 1\,,$$
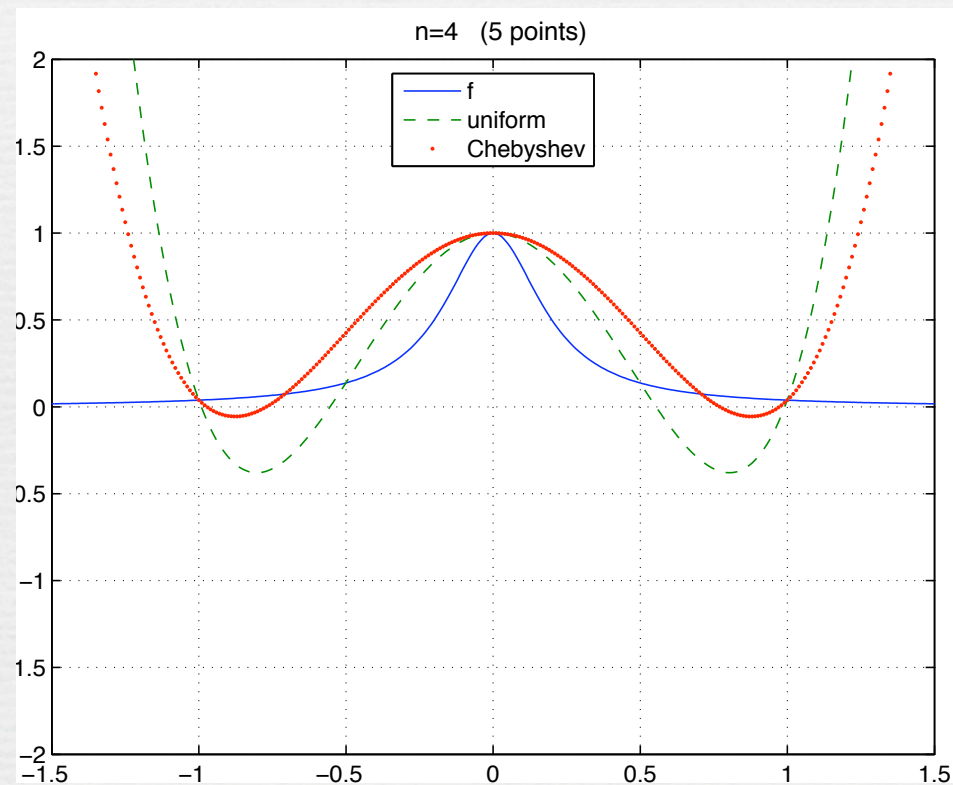
Uniformly distributed:

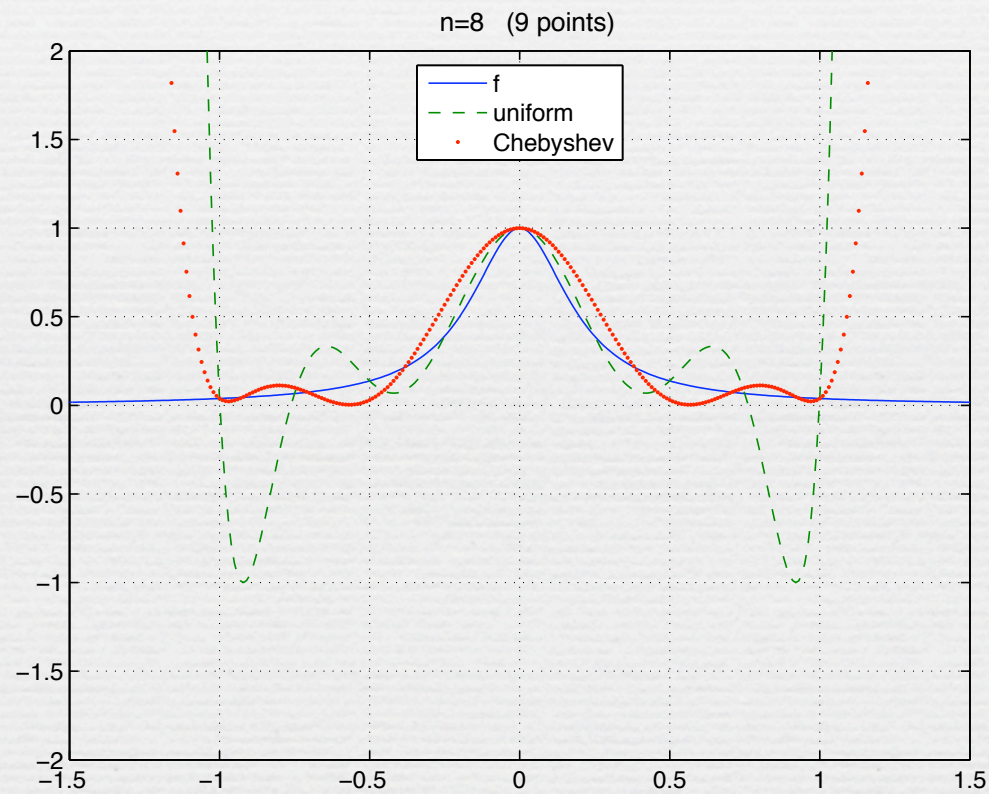$$x_i = -1 + \frac{2i}{n}\,, \qquad i = 0, \ldots, n$$

Chebyshev:
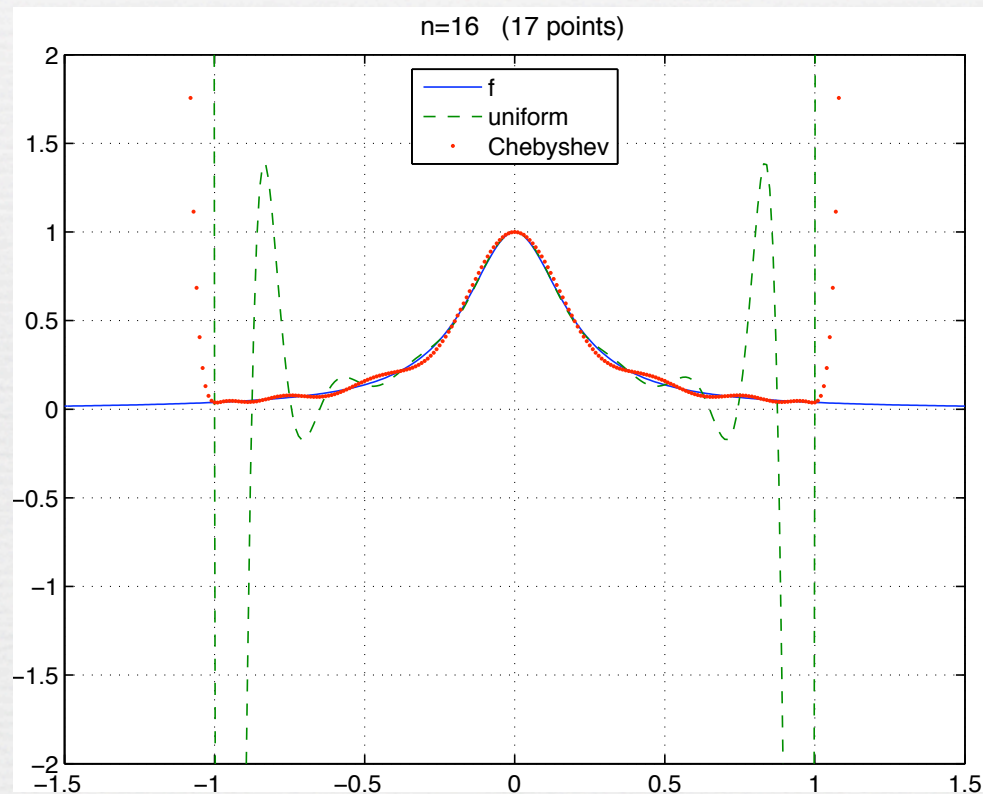
$$x_i = -\cos \pi i/n\,, \qquad i = 0, \ldots, n$$

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Homework:

- Goto www.image.ucar.edu/staff/amik

- Download homework for HOMs class (day 2).

- Construct (assemble) same problem as day 1 but with spectral (1D) elements.

- Understand the 2D code: add Dirichlet boundaries