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Краевая задача:

$$(x^2 + t^2) \frac{\partial u}{\partial t} = \frac{1}{x^2} \frac{\partial}{\partial x} \left(x^2 \frac{\partial u}{\partial x} \right) + |H_0^{(1)}(x)|, \quad 0 < x < 5\pi, \quad 0 < t \leq 10,$$

$$u(x, 0) = \sin x, \quad 0 < x < 5\pi,$$

$$u(0, t) = 0, \quad u(5\pi, t) = 1, \quad 0 < t \leq 10.$$

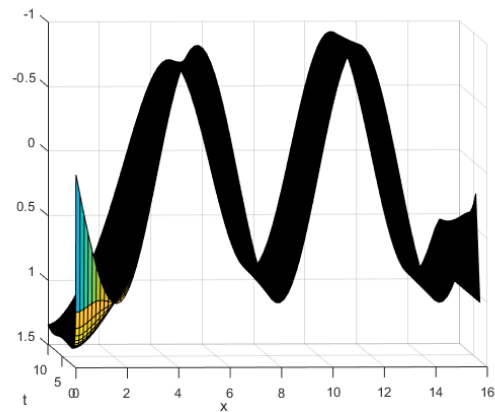
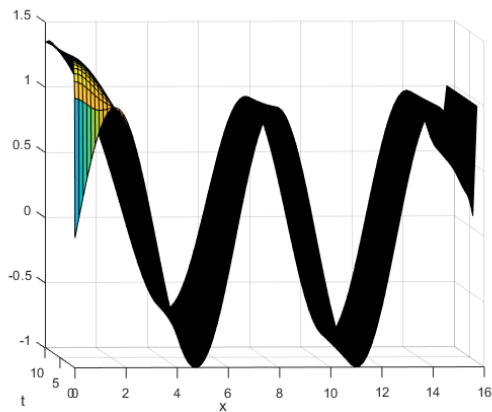


Рис. 1: WoW, MATLAB!