

$$D(t, x, \lambda) := \text{stack} \left(\lambda \cdot x_1 + \frac{1}{1+t^2} - \lambda \cdot \text{arctg}(t) \right)$$

Min step

Tolerance

Method: (1, 2, 3)

 $hmn := 10^{-4}$ $eps := 0.001$ $nm := 3$
 $t_0 := \text{time}(0) \quad x_0 := \text{stack}(0) \quad t_{min} := 0 \quad t_{max} := 10 \quad N := 100$
 $res := \text{manzhuk}(\text{stack}(0), t_{min}, t_{max}, N-1, D(t, x, -100))$
 $\text{time}(0) - t_0 = 161 \text{ MC}$
 $p1 := res_{[1..N]} \begin{bmatrix} 1 \\ 2 \end{bmatrix}$
 $t := res_{[1..N]} 1$
 $y := \overrightarrow{\text{arctg}(t)}$
 $err := res_{[1..N]} 2^{-y}$
