# Discrete-time Dynamic Systems: numerical solution, dimension 1

Time horizon $T := 5$

Evolution function $f(x,t) := t^{\frac{1}{2}} \cdot x^2 + e^{-x}$

Boundary condition $x_0 := 1$

time counter $t := 0 .. T$

Motion law $x_{t+1} := f\left(x_t, t\right)$

$x_t =$

| |
|---|
| 1 |
| 0.368 |
| 0.828 |
| 1.406 |
| 3.667 |
| 26.923 |