The hoax function

Soumadeep Ghosh

Kolkata, India

Abstract

In this paper, I describe the hoax function.
The paper ends with "The End"

Introduction

The hoax function is a function that's useful in many fields including economics, finance and statistics.
In this paper, I describe the hoax function.

The hoax function

The hoax function is

$$f(H,o,\alpha,x) = \begin{cases} 0 & \left(x + \frac{1}{(H+o)(\alpha-1)} \geq 0 \vee x + \frac{\alpha}{(H+o)(\alpha-1)} \leq 0\right) \wedge \left(x \geq \frac{\alpha}{(H+o)(\alpha-1)} \vee x + \frac{1}{-\alpha H + H + o - o\alpha} \leq 0\right) \\ H & x + \frac{1}{-\alpha H + H + o - o\alpha} > 0 \wedge x < \frac{\alpha}{(H+o)(\alpha-1)} \\ o & Otherwise \end{cases}$$

Properties of the hoax function

1. If $0 < H \leq 1 \wedge 0 < o \leq 1 \wedge \alpha > 1 \wedge -\infty < x < \infty$, then $0 \leq f(H,o,\alpha,x) \leq 1$

2. If $H > 0 \wedge o > 0 \wedge \alpha > 1$, then $\int_{-\infty}^{\infty} f(H,o,\alpha,x)dx = 1$

The End