The generalized sigmoid function

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Abstract

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

Introduction

In this paper, I describe the generalized sigmoid function.

The generalized sigmoid function

The generalized sigmoid function is

$$f(\alpha, \beta, x) = \left\{ \begin{array}{ll} \left(1 - \alpha \left(\left\{ \begin{array}{ll} (1 - x\beta)^{1/\beta} & \beta \neq 0 \\ e^{-x} & \beta = 0 \end{array} \right) \right)^{1/\alpha} & \alpha \neq 0 \\ e^{\left(-\left(\left\{ \begin{array}{ll} (1 - x\beta)^{1/\beta} & \beta \neq 0 \\ e^{-x} & \beta = 0 \end{array} \right) \right)\right)} & \alpha = 0 \end{array} \right.$$

where

$\alpha \leq 1$ and $\beta \leq 1$ are shape parameters.

The End