

hb_ifunc.m

Fernando Pujaico Rivera

May 3, 2016

Abstract

The function `hb_ifunc()` represent the inverse function of binary entropy.

1 Introduction

The function `hb_ifunc()` in the m-file `hb_ifunc.m` is defined as:

```
P = hb_ifunc(H);
```

This function represent the formulation of inverse function $h_b^{-1}()$ of binary entropy function $h_b()$; being H the binary entropy of probability P .

$$P = h_b^{-1}(H) \tag{1}$$

$$H = h_b(P) = -P \log_2(P) - (1 - P) \log_2(1 - P) \tag{2}$$

This form is showed in [1].

References

- [1] Thomas M. Cover and Joy A. Thomas. Elements of Information Theory 2nd Edition. Wiley Series in Telecommunications and Signal Processing. Wiley-Interscience, 2 edition, July 2006.