UCLA Biostatistics 285: Homework 2

Instructor: Dr. Michele Guindani

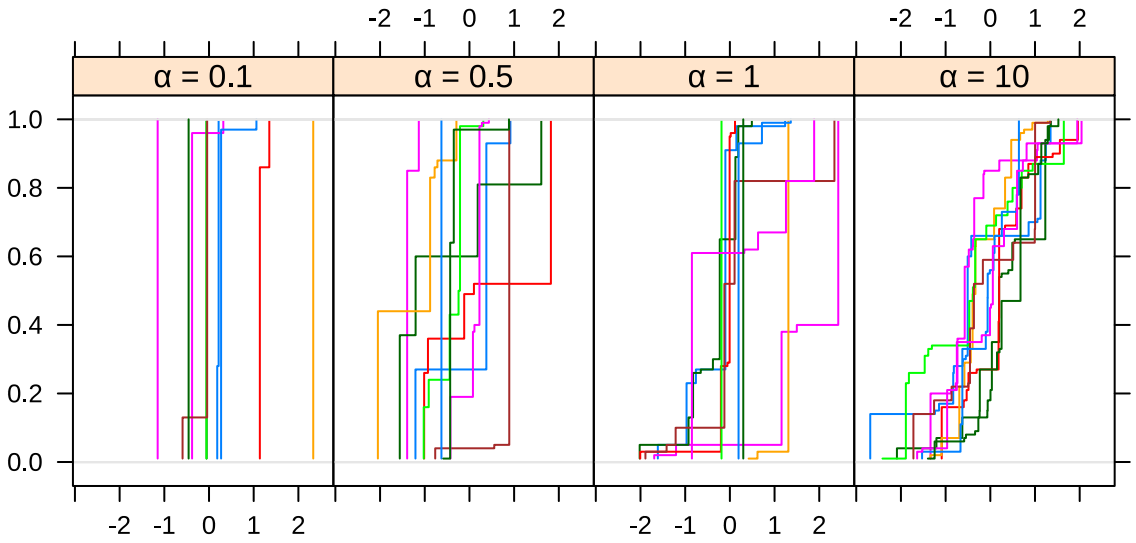
Soumyakanti Pan, e-mail: span18@ucla.edu

May 17, 2023

1 Problem 1

1.1 Part 1

The function `Sethu_jump` generates the jumps given a truncation option and a α. The `generate_DPH` uses a jump function (here we use the `Sethu_jump`) and takes input a base measure and its parameters along with α, truncation parameter K and number of samples to be generated. The final output is realizations of $\text{DP}(\alpha, \mathcal{N}(0,1))$ approximated by finite truncation with 20 terms as described in Ishwaran and Zarepour (2002).



References

Ishwaran, Hemant, and Mahmoud Zarepour. 2002. "Exact and Approximate Sum Representations for the Dirichlet Process." *Canadian Journal of Statistics* 30 (2): 269–83. https://doi.org/https://doi.org/10.2307/3315951.