

Project Report, CPSC-540

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1 Intro

1.1 Dirichlet Process Mixture Models

- brief description
- Put PGM for DPMM

1.2 Chinese Restaurant Process Representation

- brief description
- hierarchical model
- Sampling Algorithm Pseudocode [1]

1.3 Stick Breaking Representation

- brief description
- hierarchical model
- Sampling Algorithm Pseudocode

2 Experiments

2.1 Synthetic Data

2.2 Real Data

2.3 Results

- describe clustering accuracy measures used
- scatter clustering plot for CRP
- scatter clustering plot for SBR

References

- [1] Radford M Neal. Markov chain sampling methods for dirichlet process mixture models. *Journal of computational and graphical statistics*, 9(2):249–265, 2000.

3 Appendix