Example Thesis

Author Name

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List of Symbols

1 Walk on Spheres

1.1 Some continuous Monte Carlo Methods for the Dirichlet Problem

[Muller 1955]

- def. spherical process
- Kakutani's theorems
- convergence proof of WoS Γ_S Γ_S
- relationship BM - spherical process
- Generalized spherical process: spheres with radii smaller than maximal but larger than an epsilon (need for convergence)
- replace sphere with other domains: **General Dirichlet Domain Process**

→ Idea! approx. distribution, sample from this for smaller ε

- number of steps to reach boundary: $\mathcal{O}(dim)$
- δ-truncation first order and higher orders (solid angle instead of boundary point closest)

References

[Muller 1955] ME Muller. *Some continuous Monte Carlo methods for the Dirichlet problem*. The Annals of Mathematical Statistics, 1955. (Cited on page 3.)