?
?
π

$1412\mathcal{B}$

S_{ij}
$S_{ij}x = (x_1, \ldots, x_{i-1}, x_j, x_{i+1}, \ldots, x_{j-1}, x_i, x_{j+1}, \ldots, x_L).$

$(x, \circ)$
$x =$
$(x_1, \ldots, x_L)$
$S_x \equiv$
$\{S_{ij}x :$
$i <$
$j\}$
$\mathcal{Q}$
$\equiv$
$i < j \sum p_{ij}(x) I_A(S_{ij}x)$
$x \in$
Ω^L
A
$\int_A \alpha_{swap}(x, y)\mathcal{Q}(x, \mathrm{d}\, y) +$
$r(x)\mathcal{I}(x, A)$
$r(x) =$
$1-$
$\Omega^L \int \alpha_{swap}(x, y)\mathcal{Q}(x, \mathrm{d}\, y)$
$\mathcal{Q}$
$\int_A \alpha_{swap}(x, y)\mathcal{Q}(x, \mathrm{d}\, y) =$
$i < j \sum p_{ij}(x) \int \alpha_{swap}(x, y) I_A(y) \delta_{S_{ij}x}(\mathrm{d}\, y)$
$=$
$i < j \sum p_{ij}(x) \alpha_{swap}(x, S_{ij}x) I_A(S_{ij}x),$
$\sum p_{ij}(x) \alpha_{swap}(x, S_{ij}x) I_A(S_{ij}x) +$
$\Big(1-$
$i < j \sum p_{ij}(x) \alpha_{swap}(x, S_{ij}x)\Big) \mathcal{I}(x, A),$

$$\alpha_{swap}(x, y) = \frac{\pi_\beta(\mathrm{d}\, y)\mathcal{Q}(y, \mathrm{d}\, x)}{\pi_\beta(\mathrm{d}\, x)\mathcal{Q}(x, \mathrm{d}\, y)} \wedge 1$$

$\mu(\mathrm{d}\, x, \mathrm{d}\, y) \equiv$
$\pi(\mathrm{d}\, x)\mathcal{Q}(x, \mathrm{d}\, y)$
μ
$R(x, y) =$
$(y, x)^1$
$\alpha_{swap} \equiv$
$\frac{\mathrm{d}\, \mu \circ R^{-1}}{\mathrm{d}\, \mu}$

$$\alpha_{swap}(x, y) = \frac{\pi_\beta(y)\mathcal{Q}(y, x)}{\pi_\beta(x)\mathcal{Q}(x, y)} \wedge 1.$$

$y \in$
S_x
π_β
$Q(x, S_{ij}x) =$
$p_{ij}(x)$
$Q(S_{ij}x, x) =$
$p_{ij}(S_{ij}x)$
2

Which
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