

According to Professor Gustavo:

## 1 Q1

For  $\nu(x, dy)$ , we could neglect  $x$ , just see it as  $\nu(dy)$

And we have:

$$\nu(dy) = \lambda f(y) dy$$

$f(y)$  is the density(pdf) of  $y$ .

In the notes of Table 2: Comparing the second factor the last four equations with  $G_J f(x)$  in the upper left corner on Page 544, we notice that:

$$y = e^{y'} - 1$$

where  $y'$  is the  $y$  in Table 2.

In this way, assume that the pdf of  $y$  is  $f(y)$ , and the pdf of  $y'$  is  $g(y')$ , then we have:

$$f(y) = e^{g(y)} - 1$$

where  $g(y)$  is given in the notes of Table 2.

## 2 Q2

For the upper and lower bounds of the integral in  $\Lambda_J$ , we can just draw a random variable from a uniform distribution with the range of  $(\frac{x_j}{x_i} - 1, \frac{x_{j+1}}{x_i} - 1)$ .