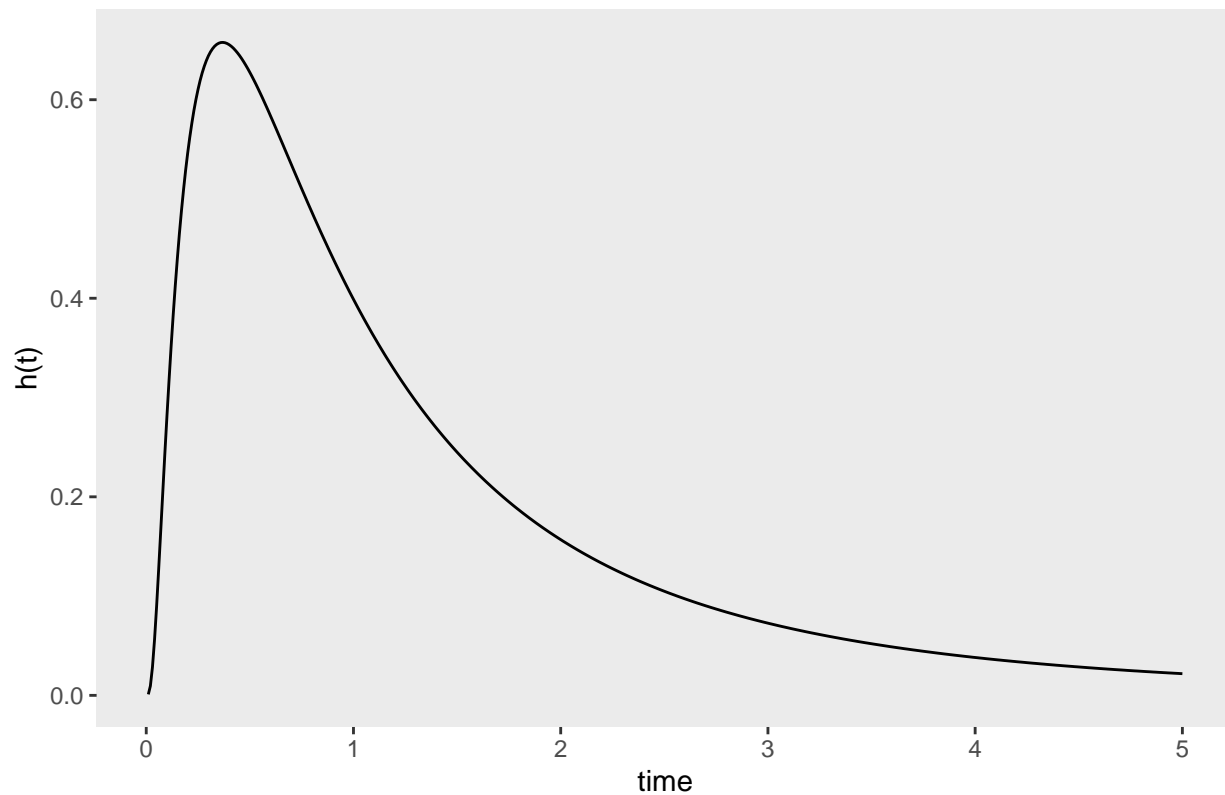


# P8108

Zirui Zhang

```
m = 0
s = 1
t = seq(0.01, 5, by = 0.01)
hazard = 1/(t*s*sqrt(2*pi))*exp(-((log(t)-m)^2)/(2*s^2))
data = data.frame(x = t, y = hazard)
ggplot(data, aes(x = x, y = y)) +
  geom_line() +
  labs(x = "time", y = "h(t)", title = "Lognormal Distribution with (0, 1)") +
  theme(panel.grid = element_blank())
```

Lognormal Distribution with (0, 1)



```
a = 3
b = 1
t = seq(0.01, 10, by = 0.01)
hazard_gamma = (t^(a-1)*exp(-t/b))/(b^a*gamma(a))
data_gamma <- data.frame(x = t, y = hazard_gamma)
ggplot(data_gamma, aes(x = x, y = y)) +
  geom_line() +
```

```
labs(x = "time", y = "h(t)", title = "Gamma Distribution with (3, 1)") +  
theme(panel.grid = element_blank())
```

