

(\*Py(mu,2)\*)

n = 2;

Ymu = Table[gamma mu i, {gamma mu i, {0, 0.005, 0.05}}] \*

$$\text{Table}\left[\frac{n!}{i! (n-i)!}, \{i, \{0, 1, 2\}\}\right] * \text{Table}\left[\frac{(\mu/\mu_0)^i}{(1 + \mu/\mu_0)^n}, \{i, \{0, 1, 2\}\}\right]$$

$$\left\{0, \frac{0.01 \mu}{\left(1 + \frac{\mu}{\mu_0}\right)^2 \mu_0}, \frac{0.05 \mu^2}{\left(1 + \frac{\mu}{\mu_0}\right)^2 \mu_0^2}\right\}$$

$$\text{Ymusim} = \text{FullSimplify}\left[\frac{0.01 \mu}{\left(1 + \frac{\mu}{\mu_0}\right)^2 \mu_0} + \frac{0.05 \mu^2}{\left(1 + \frac{\mu}{\mu_0}\right)^2 \mu_0^2}\right]$$

$$\frac{\mu (0.05 \mu + 0.01 \mu_0)}{(\mu + \mu_0)^2}$$

Ym = Table[gamma mi, {gamma mi, {0, 0.04, 0.2}}] \*

$$\text{Table}\left[\frac{n!}{i! (n-i)!}, \{i, \{0, 1, 2\}\}\right] * \text{Table}\left[\frac{(\mu/\mu_0)^i}{(1 + \mu/\mu_0)^n}, \{i, \{0, 1, 2\}\}\right]$$

$$\left\{0, \frac{0.08 \mu}{\left(1 + \frac{\mu}{\mu_0}\right)^2 \mu_0}, \frac{0.2 \mu^2}{\left(1 + \frac{\mu}{\mu_0}\right)^2 \mu_0^2}\right\}$$

$$\text{Ymsim} = \text{FullSimplify}\left[\frac{0.08 \mu}{\left(1 + \frac{\mu}{\mu_0}\right)^2 \mu_0} + \frac{0.2 \mu^2}{\left(1 + \frac{\mu}{\mu_0}\right)^2 \mu_0^2}\right]$$

$$\frac{\mu (0.2 \mu + 0.08 \mu_0)}{(\mu + \mu_0)^2}$$

(\* Py = Ymu/(Ym+km) \*)

$$\text{Pymu2} = \text{FullSimplify}\left[\left(\frac{\mu (0.05 \mu + 0.01 \mu_0)}{(\mu + \mu_0)^2}\right) / \left(0.5 + \frac{\mu (0.2 \mu + 0.08 \mu_0)}{(\mu + \mu_0)^2}\right)\right]$$

$$\frac{\mu (0.0714286 \mu + 0.0142857 \mu_0)}{1. \mu^2 + 1.54286 \mu \mu_0 + 0.714286 \mu_0^2}$$