```
(*Py(mu,5)*)
n = 5;
Ymu = Table[γμi, {γμi, {0, 0.005, 0.05, 0.5, 0.5, 0.5}}] *
   Table[n! / (i! (n - i)!), {i, {0, 1, 2, 3, 4, 5}}] * Table[(μ/μ0)^i / (1 + μ/μ0)^n, {i, {0, 1, 2, 3, 4, 5}}]
```

$$\left\{0, \frac{0.025\,\mu}{\left(1+\frac{\mu}{\mu 0}\right)^5 \mu 0}, \frac{0.5\,\mu^2}{\left(1+\frac{\mu}{\mu 0}\right)^5 \mu 0^2}, \frac{5.\,\mu^3}{\left(1+\frac{\mu}{\mu 0}\right)^5 \mu 0^3}, \frac{2.5\,\mu^4}{\left(1+\frac{\mu}{\mu 0}\right)^5 \mu 0^4}, \frac{0.5\,\mu^5}{\left(1+\frac{\mu}{\mu 0}\right)^5 \mu 0^5}\right\}$$

```
Ymusim =
   FullSimplify[0.025 μ / (1 + μ/μ0)^5 μ0 + 0.5 μ^2 / (1 + μ/μ0)^5 μ0^2 + 5 μ^3 / (1 + μ/μ0)^5 μ0^3 + 2.5 μ^4 / (1 + μ/μ0)^5 μ0^4 + 0.5 μ^5 / (1 + μ/μ0)^5 μ0^5]
```

$$\frac{\mu\left(0.5\,\mu^4 + 2.5\,\mu^3\,\mu 0 + 5.\,\mu^2\,\mu 0^2 + 0.5\,\mu\,\mu 0^3 + 0.025\,\mu 0^4\right)}{(\mu + \mu 0)^5}$$

```
Ym = Table[γmi, {γmi, {0, 0.04, 0.2, 1.0, 1.0, 1.0}}] *
   Table[n! / (i! (n - i)!), {i, {0, 1, 2, 3, 4, 5}}] * Table[(μ/μ0)^i / (1 + μ/μ0)^n, {i, {0, 1, 2, 3, 4, 5}}]
```

$$\left\{0, \frac{0.2\,\mu}{\left(1+\frac{\mu}{\mu 0}\right)^5 \mu 0}, \frac{2.\,\mu^2}{\left(1+\frac{\mu}{\mu 0}\right)^5 \mu 0^2}, \frac{10.\,\mu^3}{\left(1+\frac{\mu}{\mu 0}\right)^5 \mu 0^3}, \frac{5.\,\mu^4}{\left(1+\frac{\mu}{\mu 0}\right)^5 \mu 0^4}, \frac{1.\,\mu^5}{\left(1+\frac{\mu}{\mu 0}\right)^5 \mu 0^5}\right\}$$

```
Ymsim =
   FullSimplify[0.2 μ / (1 + μ/μ0)^5 μ0 + 2 μ^2 / (1 + μ/μ0)^5 μ0^2 + 10 μ^3 / (1 + μ/μ0)^5 μ0^3 + 5 μ^4 / (1 + μ/μ0)^5 μ0^4 + 1 μ^5 / (1 + μ/μ0)^5 μ0^5]
```

$$\frac{1}{(\mu + \mu 0)^5}\mu\left(\mu^4 + 5.\,\mu^3\,\mu 0 + 10.\,\mu^2\,\mu 0^2 + 2.\,\mu\,\mu 0^3 + 0.2\,\mu 0^4\right)$$

```
Pymu5 = FullSimplify[(1 / (μ + μ0)^5 μ (0.5 μ^4 + 2.5 μ^3 μ0 + 5 μ^2 μ0^2 + 0.5 μ μ0^3 + 0.025 μ0^4)) /
    (0.5 + (μ (μ^4 + 5 μ^3 μ0 + 10 μ^2 μ0^2 + 2 μ μ0^3 + 0.2 μ0^4)) / (μ + μ0)^5)]
```

$$\left(\mu\left(0.333333\,\mu^4 + 1.66667\,\mu^3\,\mu 0 + 3.33333\,\mu^2\,\mu 0^2 + 0.333333\,\mu\,\mu 0^3 + 0.0166667\,\mu 0^4\right)\right) / \left(1.\,\mu^5 + 5.\,\mu^4\,\mu 0 + 10.\,\mu^3\,\mu 0^2 + 4.66667\,\mu^2\,\mu 0^3 + 1.8\,\mu\,\mu 0^4 + 0.333333\,\mu 0^5\right)$$