```
(*Pl(mu,3)*)
n = 6;
L = Table[li, {li, {1.0, 0.6, 0.3, 0.1, 0.05, 0.05, 0.05}}] * Table[n! / (i! (n - i)!),
    {i, {0, 1, 2, 3, 4, 5, 6}}] * Table[(μ/μ0)^i / (1 + μ/μ0)^n, {i, {0, 1, 2, 3, 4, 5, 6}}]
```

$$\left\{\frac{1.}{\left(1+\frac{\mu}{\mu 0}\right)^6}, \frac{3.6\,\mu}{\left(1+\frac{\mu}{\mu 0}\right)^6 \mu 0}, \frac{4.5\,\mu^2}{\left(1+\frac{\mu}{\mu 0}\right)^6 \mu 0^2}, \frac{2.\,\mu^3}{\left(1+\frac{\mu}{\mu 0}\right)^6 \mu 0^3}, \frac{0.75\,\mu^4}{\left(1+\frac{\mu}{\mu 0}\right)^6 \mu 0^4}, \frac{0.3\,\mu^5}{\left(1+\frac{\mu}{\mu 0}\right)^6 \mu 0^5}, \frac{0.05\,\mu^6}{\left(1+\frac{\mu}{\mu 0}\right)^6 \mu 0^6}\right\}$$

```
Lsim = FullSimplify[1 / (1 + μ/μ0)^6 + 3.6 μ / (1 + μ/μ0)^6 μ0 + 4.5 μ^2 / (1 + μ/μ0)^6 μ0^2,
    2 μ^3 / (1 + μ/μ0)^6 μ0^3 + 0.75 μ^4 / (1 + μ/μ0)^6 μ0^4 + 0.3 μ^5 / (1 + μ/μ0)^6 μ0^5 + 0.05 μ^6 / (1 + μ/μ0)^6 μ0^6]
```

$$\frac{\mu 0^4 \left(4.5\,\mu^2 + 3.6\,\mu\,\mu 0 + 1.\,\mu 0^2\right)}{\left(\mu + \mu 0\right)^6}$$

```
Ym = Table[γmi, {γmi, {0, 0.04, 0.2, 1.0, 1.0, 1.0, 1.0}}] *
   Table[n! / (i! (n - i)!), {i, {0, 1, 2, 3, 4, 5, 6}}] *
   Table[(μ/μ0)^i / (1 + μ/μ0)^n, {i, {0, 1, 2, 3, 4, 5, 6}}]
```

$$\left\{0, \frac{0.24\,\mu}{\left(1+\frac{\mu}{\mu 0}\right)^6 \mu 0}, \frac{3.\,\mu^2}{\left(1+\frac{\mu}{\mu 0}\right)^6 \mu 0^2}, \frac{20.\,\mu^3}{\left(1+\frac{\mu}{\mu 0}\right)^6 \mu 0^3}, \frac{15.\,\mu^4}{\left(1+\frac{\mu}{\mu 0}\right)^6 \mu 0^4}, \frac{6.\,\mu^5}{\left(1+\frac{\mu}{\mu 0}\right)^6 \mu 0^5}, \frac{1.\,\mu^6}{\left(1+\frac{\mu}{\mu 0}\right)^6 \mu 0^6}\right\}$$

```
Ymsim = FullSimplify[0.24 μ / (1 + μ/μ0)^6 μ0 + 3 μ^2 / (1 + μ/μ0)^6 μ0^2 + 20 μ^3 / (1 + μ/μ0)^6 μ0^3,
    15 μ^4 / (1 + μ/μ0)^6 μ0^4 + 6 μ^5 / (1 + μ/μ0)^6 μ0^5 + 1 μ^6 / (1 + μ/μ0)^6 μ0^6]
```

$$\frac{\mu\,\mu 0^3 \left(20.\,\mu^2 + 3.\,\mu\,\mu 0 + 0.24\,\mu 0^2\right)}{\left(\mu + \mu 0\right)^6}$$

```
(* Pl = L/(Ym+km) *)
```

```
Plmu6 =
  FullSimplify[(μ0^4 (4.5 μ^2 + 3.6 μ μ0 + 1 μ0^2)) / (μ + μ0)^6) / (0.5 + (μ μ0^3 (20 μ^2 + 3 μ μ0 + 0.24 μ0^2)) / (μ + μ0)^6)]
(μ0^4 (4.5 μ^2 + 3.6 μ μ0 + μ0^2)) /
 ((μ + μ0)^6 (0.5 + (20. μ μ0^3 (μ^2 + 0.15 μ μ0 + 0.012 μ0^2)) / (μ + μ0)^6))
```