Stirling Difference Formula

$$P(u) = y_0 + p\mu\delta y_0 + \frac{p^2\delta^2 y_0}{2!} + \frac{p(p^2-1)\mu\delta^3 y_0}{3!}$$

$$+ \frac{p^2(p^2-1)\delta^4 y_0}{4!}$$