

$$\beta_1 - \beta_0 \in \mathbb{N} + 1$$

$$x^2 \underline{\eta} + x \underline{1-x} \underline{\eta} - \underline{1+3x} \eta = 0 \begin{cases} \gamma_0 = \gamma_1^x \not\propto + x^{-1} - 2 - x \sum_n^{\mathbb{N}} x^{\not\propto} (1 - (n+3) H_n) & \beta_0 = \\ \gamma_1 = x \sum_n^{\mathbb{N}} x^{\not\propto} (1 + n/3) & \beta_1 = \end{cases}$$

$$\text{Bes } x^2 \underline{\eta} + x \underline{\eta} + \underline{x^2 - \lambda^2} \eta = 0 \begin{cases} \gamma_0 = \sum_m^{\mathbb{N}} \left(\frac{x}{2}\right)^{2m} \frac{-1^m}{m!(1+\lambda)_m} & \beta_0 = \\ \gamma_1 = 2 \sum_m^{\mathbb{N}} \left(\frac{x}{2}\right)^{2m+1} \frac{-1^m}{m!(1-\lambda)_m} & \beta_1 = \end{cases}$$

$$\text{Bes } x^2 \underline{\eta} + x \underline{\eta} + \underline{x^2 - \lambda^2} \eta = 0$$

$$\begin{cases} \gamma_0 = \sum_m^{\mathbb{N}} \left(\frac{x}{2}\right)^{2m} \frac{-1^m}{m!(1+\lambda)_m} & \beta_0 = \\ \gamma_1 = \gamma_0^x \not\propto - \frac{(\lambda-1)!}{2} \sum_{0 \leq m \leq \lambda-1} \left(\frac{x}{2}\right)^{2m-\lambda} \frac{-1^m}{m!(1-\lambda)_m} - \frac{1}{2} \sum_m^{\mathbb{N}} \left(\frac{x}{2}\right)^{2m+\lambda-1} \frac{-1^m (H_m + H_{m+\lambda})}{m!(m+\lambda)!} & \beta_1 = \end{cases}$$

$$x^2 \underline{\eta} + x \underline{\eta} + \underline{x^2 - 1} \eta = 0 \begin{cases} \gamma_0 = \sum_m^{\mathbb{N}} \left(\frac{x}{2}\right)^{2m+1} \frac{-1^m}{m!(m+1)!} & \beta_0 = \\ \gamma_1 = \gamma_0^x \not\propto + x^{-1} + \frac{1}{2} \sum_m^{\mathbb{N}} \left(\frac{x}{2}\right)^{2m+1} \frac{-1^m (H_m + H_{m+1})}{m!(m+1)!} & \beta_1 = \end{cases}$$

$$4x^2 \underline{\eta} + 2x \underline{2-x} \underline{\eta} - \underline{1+3x} \eta = 0 \begin{cases} \gamma_0 = x^{1/2} \sum_n^{\mathbb{N}} (x/2)^{\not\propto} & \beta_0 = \\ \gamma_1 = \gamma_0^x \not\propto + 2x^{-1/2} - \frac{1}{2} x^{3/2} \sum_n^{\mathbb{N}} (x/2)^n \frac{H_{n+1}}{(n+1)!} & \beta_1 = \end{cases}$$

$$x^2 \underline{\eta} - x \underline{6+x} \underline{\eta} + 10\eta = 0 \begin{cases} \gamma_0 = x^5 \sum_n^{\mathbb{N}} x^{\not\propto} (2 + n/2) & \beta_0 = \\ \gamma_1 = \gamma_0^x \not\propto + x^2 - x^3 + \frac{3}{2} x^4 + \frac{1}{2} x^5 \sum_n^{\mathbb{N}} x^{\not\propto} (1 - (n+4) H_n) & \beta_1 = \end{cases}$$

$$x \underline{\eta} + \underline{3+2x} \underline{\eta} + 8\eta = 0 \begin{cases} \gamma_0 = \sum_n^{\mathbb{N}} (-2x)^{\not\propto} (1 + n/3) & \beta_0 = \\ \gamma_1 = \gamma_0^x \not\propto + x^{-2} + 4x^{-1} + 4 \sum_n^{\mathbb{N}} (-2x)^{\not\propto} ((n+3) H_n - 1) & \beta_1 = \end{cases}$$

$$x \underline{1-x} \underline{\eta} + 2 \underline{1-x} \underline{\eta} + 2\eta = 0 \begin{cases} \gamma_0 = -2 + 2x & \beta_0 = \\ \gamma_1 = \gamma_0^x \not\propto + x^{-1} + 1 - 5x + 2 \sum_n^{\mathbb{N}} \frac{x^{n+2}}{(n+2)(n+3)} & \beta_1 = \end{cases}$$