

$$\frac{1}{\sqrt{1-2xt+t^2}} \stackrel{\text{Leg}}{=} \sum_n^{\mathbb{N}} t^n \begin{matrix} n+1 & | & -n \\ \hline 1-x \\ \hline 2 \\ \hline 1 \end{matrix}$$

$$-1 \mid \begin{matrix} 1 \\ \hline 2 \\ \hline m \end{matrix} \mathbb{C} : dx$$

$$-1 \mid \begin{matrix} 1 \\ \hline 2 \\ \hline m \end{matrix} \mathbb{C} \leftarrow -1 \mid \begin{matrix} 1 \\ \hline 2 \\ \hline m \end{matrix} \mathbb{C}$$

$$(1-x^2) \mid -2x \mid + n(n+1) \mid = 0 \text{ Leg}$$

$$(x^2-1) \mid + 2x \mid + \frac{\mu^2}{1-x^2} = \nu(\nu+1) \mid$$

$$\begin{matrix} -n & | & n+1 \\ \hline 1-x \\ \hline 2 \\ \hline 1 \end{matrix} = \frac{2^n (1/2)_n}{n!} \begin{bmatrix} -n/2: 1/2 - n/2 \\ 1/2 \end{bmatrix} = {}^x P_n$$

$$\overline{x-1}^{-n-1} \begin{matrix} n+1 & | & n+1 \\ \hline 2 \\ \hline 1-x \\ \hline 2n+2 \end{matrix} = \overline{x+1}^{-n-1} \begin{matrix} n+1 & | & n+1 \\ \hline 2 \\ \hline 1+x \\ \hline 2n+2 \end{matrix}$$

$$x^{-n-1} \begin{matrix} n/2 + 1/2 & | & n/2 + 1 \\ \hline x^{-2} \\ \hline n+3/2 \end{matrix} = {}^x Q_n$$

$$\left( \frac{1+x}{1-x} \right)^{\mu/2} \begin{matrix} -\nu & | & \nu \\ \hline 1-x \\ \hline 2 \\ \hline 1-\mu \end{matrix} = {}^x P_\nu^\mu$$

$$\left( \frac{1+x}{1-x} \right)^{-\mu/2} \begin{matrix} -\nu & | & \nu \\ \hline 1-x \\ \hline 2 \\ \hline 1+\mu \end{matrix}$$