$$n{+}1 \underset{\text{monometric}}{\rightharpoonup} \mathbb{R}^{n}$$

$${}_{0}\text{ʅ} \cdot\cdot \ {}_{n}\text{ʅ} \in \mathbb{R}^{n}$$

$$\overline{{}_{i}\text{ʅ} - {}_{j}\text{ʅ}} = 1$$

$$\overline{{}_{i}\text{ʅ}}^{2} = \frac{n}{2\,(n+1)}$$

$$\Longrightarrow \left(\text{ʅ}^{i} \colon \frac{-1}{\sqrt{2\,(n+1)\,(n+2)}}\right) \in \mathbb{R}^{1+n} \ni \left(0 \colon \sqrt{\frac{n+1}{2\,(n+2)}}\right)$$

$$L_{n+1}^{2} = \overline{\left(\frac{2L_n^2 - 1}{2\sqrt{1 - L_n^2}} \colon \text{ʅ}^{i}\right)}^{2} = \frac{\overbrace{2L_n^2 - 1}^{2}}{4\underbrace{1 - L_n^2}} + \overline{\text{ʅ}^{i}}^{2} = \frac{\overbrace{2L_n^2 - 1}^{2}}{4\underbrace{1 - L_n^2}} + L_n^2 = \frac{1}{4\underbrace{1 - L_n^2}} = \overline{\left(\frac{1}{2\sqrt{1 - L_n^2}} \colon 0\right)}^{2}$$

$$\frac{1}{4\underbrace{1 - L_n^2}} < \frac{1}{2}$$

$$\overline{\left(\frac{2L_n^2 - 1}{2\sqrt{1 - L_n^2}} \colon \text{ʅ}^{i}\right) - \left(\frac{2L_n^2 - 1}{2\sqrt{1 - L_n^2}} \colon \text{ʅ}^{j}\right)} = \overline{{}_{i}\text{ʅ} - {}_{j}\text{ʅ}} = 1$$

$$\overline{\left(\frac{2L_n^2 - 1}{2\sqrt{1 - L_n^2}} \colon \text{ʅ}^{i}\right) - \left(\frac{1}{2\sqrt{1 - L_n^2}} \colon 0\right)}^{2} = \overline{\frac{2L_n^2 - 1}{2\sqrt{1 - L_n^2}} - \frac{1}{2\sqrt{1 - L_n^2}}}^{2} + \overline{\text{ʅ}^{i}}^{2} = \overline{\frac{2L_n^2 - 1}{2\sqrt{1 - L_n^2}} - \frac{1}{2\sqrt{1 - L_n^2}}}^{2} + L_n^2 = 1$$