

$$X \xrightarrow{\gamma_n} \mathbb{R}: \quad \sum \gamma_n \text{ u-konv on } X \stackrel{\text{Cau}}{\Leftrightarrow} \bigwedge_{\varepsilon} \bigvee_{n_0} \bigwedge_{p \leq q} \bigwedge_x \overline{\sum_n^{p/q} x \gamma_n} \leq \varepsilon$$

$$\sum_{n \geq 1} \frac{e^{-nx}}{n^2} \text{ stet}_{\mathbb{R}}$$

$$\sum_{n \geq 1} \frac{1}{n^2 \log nx} \text{ stet}_{2|\infty}$$

$$\text{diff}_{\mathbb{R}}: \quad \sum_{n \geq 1} \frac{\cos nx}{n^3}: \quad \sum_{n \geq 0} \frac{\sin 2^n x}{4^n}$$

$$\sum_{n \geq 1} \frac{x^n}{n^2} \text{ konv norm on } -1|1: \quad \text{same } \sum_{n \geq 1} \frac{x^n}{n}$$

$$\left\{ \begin{array}{l} \mathbb{I} \xrightarrow{\gamma_n} \mathbb{R} \\ \text{stet} \\ \overline{\gamma_n} \leq 2^{-n} \end{array} \right\} \Rightarrow \left\{ \begin{array}{l} \sum \gamma_n \text{ u-konv} \\ \sum \gamma_n \text{ stet}_{\mathbb{I}} \end{array} \right.$$

$$\left\{ \begin{array}{l} \mathbb{R}_+ \xrightarrow{\gamma} \mathbb{R} \\ \text{stet} \\ 0 \leq x \gamma \leq \frac{x}{x+2} \end{array} \right\} \Rightarrow \text{iterates } \gamma^{(n)} = \gamma \circ \dots \circ \gamma \left\{ \begin{array}{l} 0 \leq x \gamma^{(n)} \leq 2^{1-n} \\ \sum_{n \geq 1} \gamma^{(n)} \text{ stet on } \mathbb{R}_+ \end{array} \right.$$

$$\text{which x } \sum_{n \geq 1} \frac{1}{n} \frac{x^n}{1+x^{2n}} \text{ abs konv/konv}$$

$$f_n \in E \text{ norm} / \sum_{n \geq 0} f_n \in E \text{ endl part-sum} \Rightarrow \overline{\sum_{n \geq 0} f_n} \leq \sum_{n \geq 0} \overline{f_n} \infty \text{ Dreiecks-Ugl}$$

$$x \gamma = \sum_{n \geq 1} \frac{1}{(x+n)^2} \text{ stet on } 0|1: \quad \int_0^1 \gamma$$