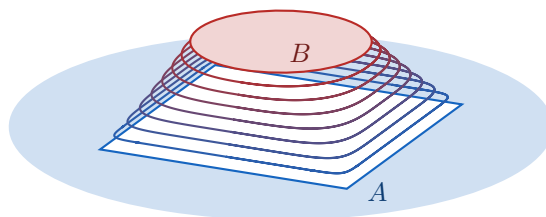
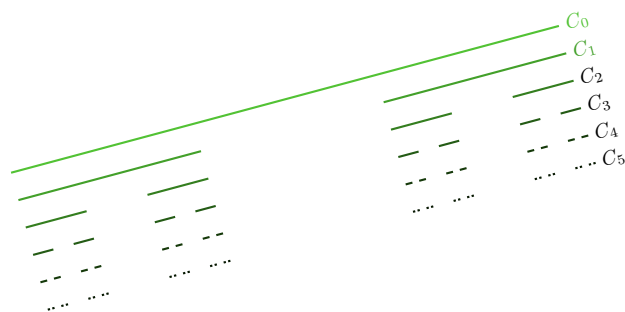


$$\begin{array}{ccc} X & \xrightarrow{\cup\{\infty\}} & X^* \\ \downarrow & & \downarrow \\ C_0(X) & \xrightarrow{\oplus \mathbb{F}1} & C(X^*) \end{array}$$

Three graphs of oscillating functions are shown, with the amplitude increasing from left to right. Below them is the equation $\lim_{t \rightarrow \infty} \int_{\mathbb{R}} f(x) \sin(tx) dx = 0$.

>implying we can discuss analysis



Several graphs of functions f_n are shown, converging to a limit function. The area under the curves is shaded in yellow. The equation $\int \lim_{n \rightarrow \infty} f_n d\mu = \lim_{n \rightarrow \infty} \int f_n d\mu$ is written above the graphs.

A diagram showing a circle with a gradient background. Inside the circle, the equation $(L^p)^* \cong L^q$ is written. Above the equation is the formula $\|f\|_p = (\int |f|^p d\mu)^{1/p}$. Below the equation is the inequality $\|fg\|_1 \leq \|f\|_p \|g\|_q$.