

# TALLERS

E. Unitario  $\leftrightarrow$  E. Euclides

$\downarrow$  ltjo.

Hilbert M.C.

$\downarrow$

E. Lineal con  
producto  
interno.

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Secuencia ortonormal  $e_1, e_2, \dots$

$\forall x \in \mathcal{H}$

$$\|x\|^2 \geq \sum_{k=1}^{\infty} |\underbrace{\langle x, e_k \rangle}_{\text{coeficiente de Fourier}}|^2$$

coeficiente  
de Fourier

finito-dimensional

$$x = \sum (c_n e_n) \rightarrow \|x\|^2 = \sum |\langle x, e_n \rangle|^2$$

$c_n = \langle x, e_n \rangle$

$$x_n \text{ o } x_m$$

Dirichlet.

 $\hookrightarrow f(x)$ 

$$\|z - \frac{x+y}{2}\|^2 = \underbrace{\|(\frac{z-x}{2}) + (\frac{z-y}{2})\|^2}_{\downarrow}$$