

## Advanced Calculus (I)

Let  $A \subseteq \mathbb{R}$  and  $f : A \rightarrow \mathbb{R}$ .

$f$  is Hölder continuous with exponents  $\alpha$  if  $\exists K > 0$  and  $0 < \alpha \leq 1$  such that

$$|f(x) - f(y)| \leq K |x - y|^\alpha \quad \forall x, y \in A.$$

$$\text{alog } \sin(j\omega)$$