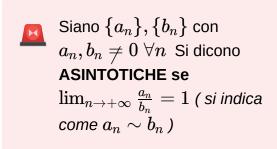


Asintotico e $\mathbb O$ piccolo



Siano
$$\{a_n\}, \{b_n\}$$
 con $b_n
eq 0 \ \forall n \ ext{si dice che } a_n
eq \mathbb{O}$

PICCOLO di b_n se $\lim_{n o +\infty} rac{a_n}{b_n} = 0$

Se
$$a_n \sim a_n'$$
 e $b_n \sim b_n'$ allora $\lim_{n \to +\infty} a_n b_n = \lim_{n \to +\infty} a_n' b_n'$ e $\lim_{n \to +\infty} \frac{a_n}{b_n'} = \lim_{n \to +\infty} \frac{a_n'}{b_n'}$

Casi di asintotismo:

$$\{a_n\} o 0$$

$$egin{array}{lll} \ln(1+&e^{a_n}-&\sin a_n \sim &(1+&1-\ a_n)\sim a_n &1\sim a_n &rac{1}{a_n} &a_n)^lpha -&\cos a_n \sim \end{array}$$

$$1 \sim lpha a_n$$
 $rac{a_n^2}{2}$