

# Arcotangente

*Materiale integrativo del*

*Corso integrato di*

*Matematica*

*per le scienze naturali ed applicate*

Paolo Baiti, Lorenzo Freddi

# Arcotangente

Arcotangente

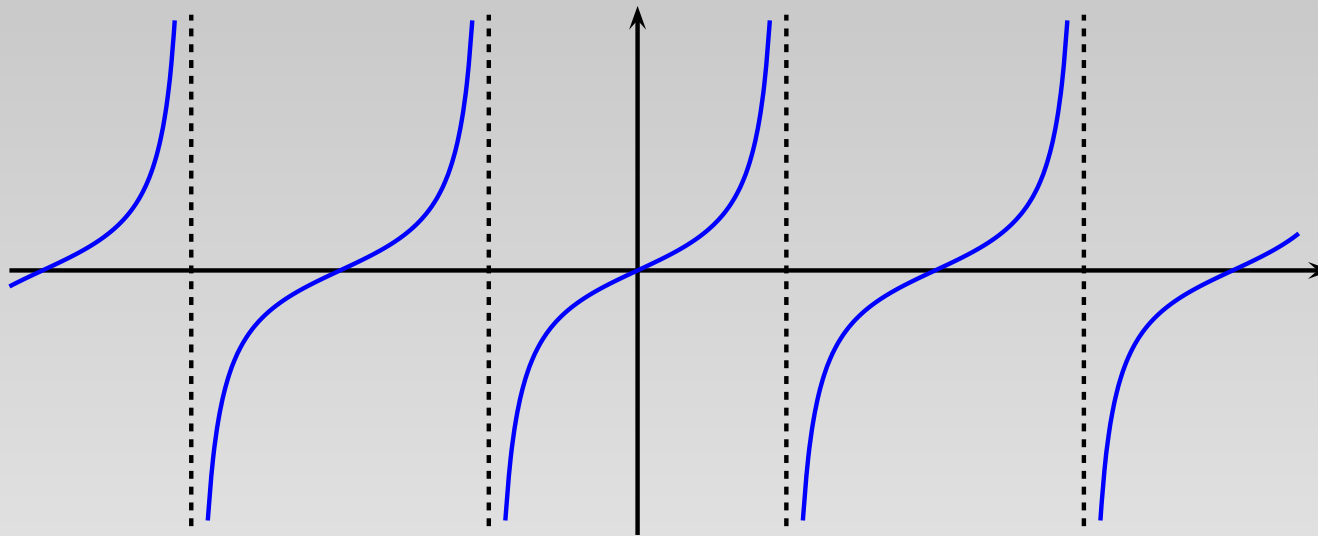


Grafico di  $tg x$



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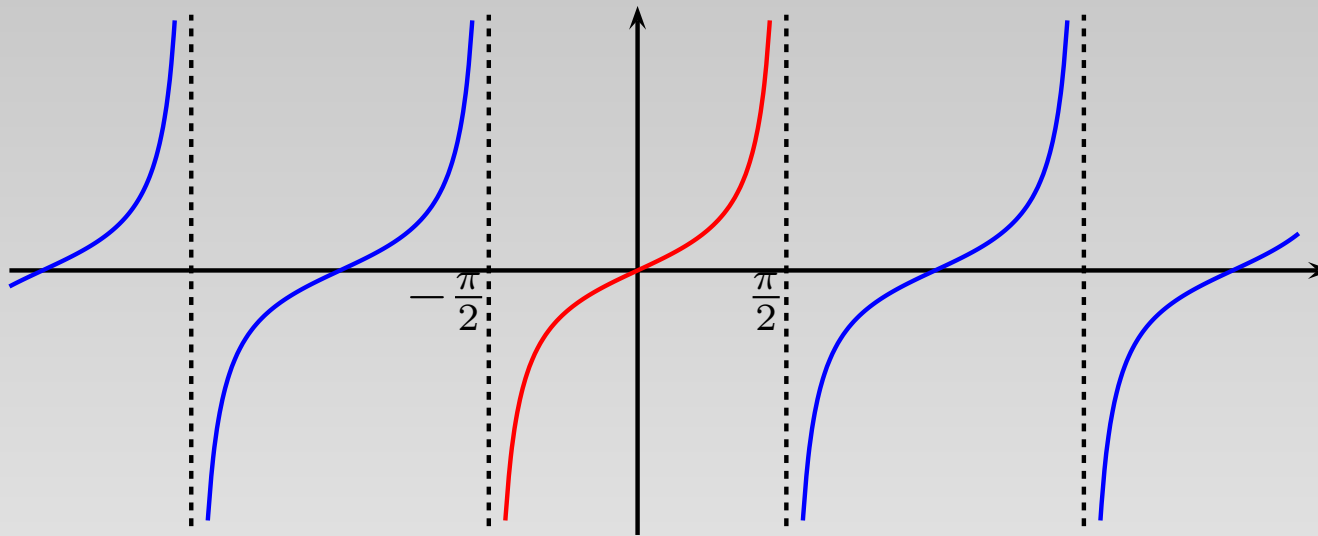


Grafico di  $\text{tg } x$

$\text{tg} \Big|_{\left] -\frac{\pi}{2}, \frac{\pi}{2} \right[} : \left] -\frac{\pi}{2}, \frac{\pi}{2} \right[ \rightarrow \mathbb{R}$  è invertibile



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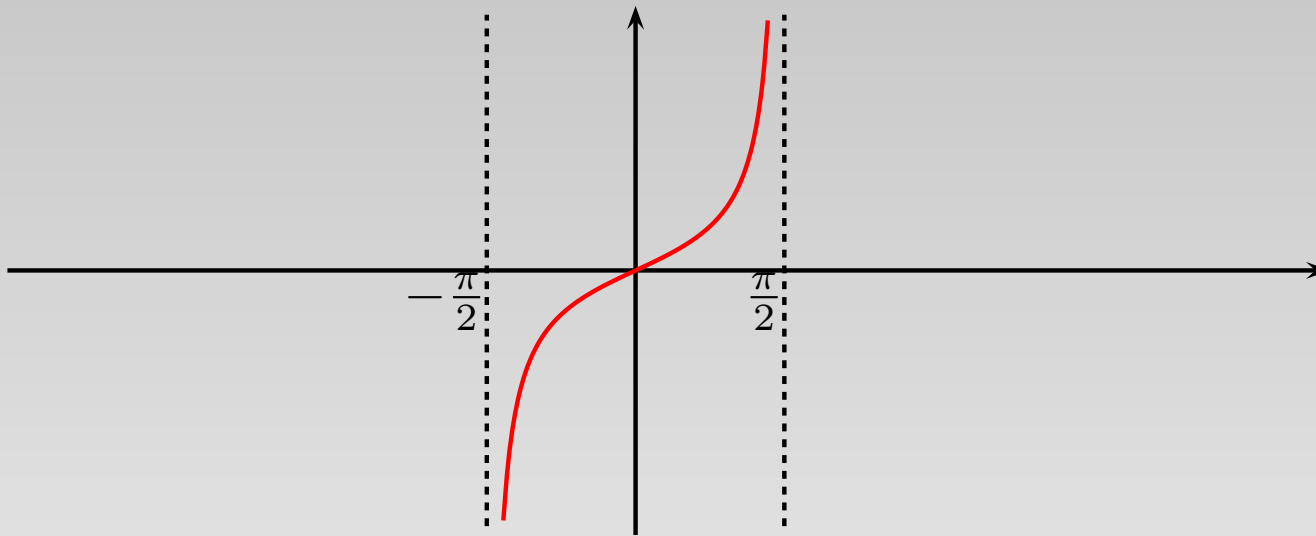


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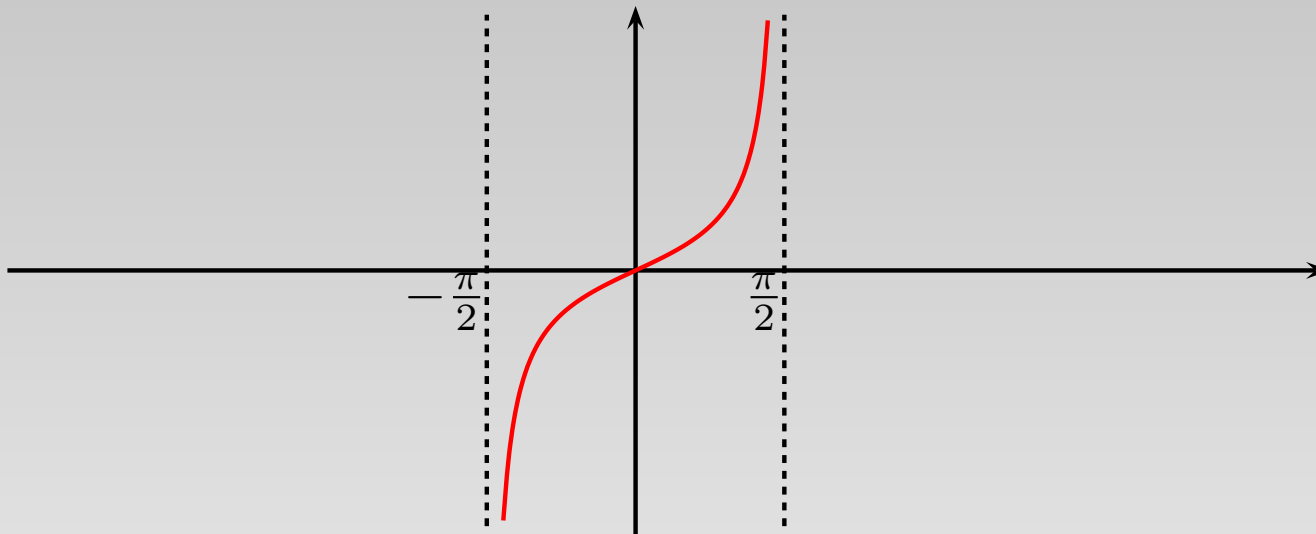


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Definiamo **arcotangente** la sua inversa

$$\text{arctg} := \left( tg|_{]-\frac{\pi}{2}, \frac{\pi}{2}[} \right)^{-1} : \mathbb{R} \rightarrow ]-\frac{\pi}{2}, \frac{\pi}{2}[$$



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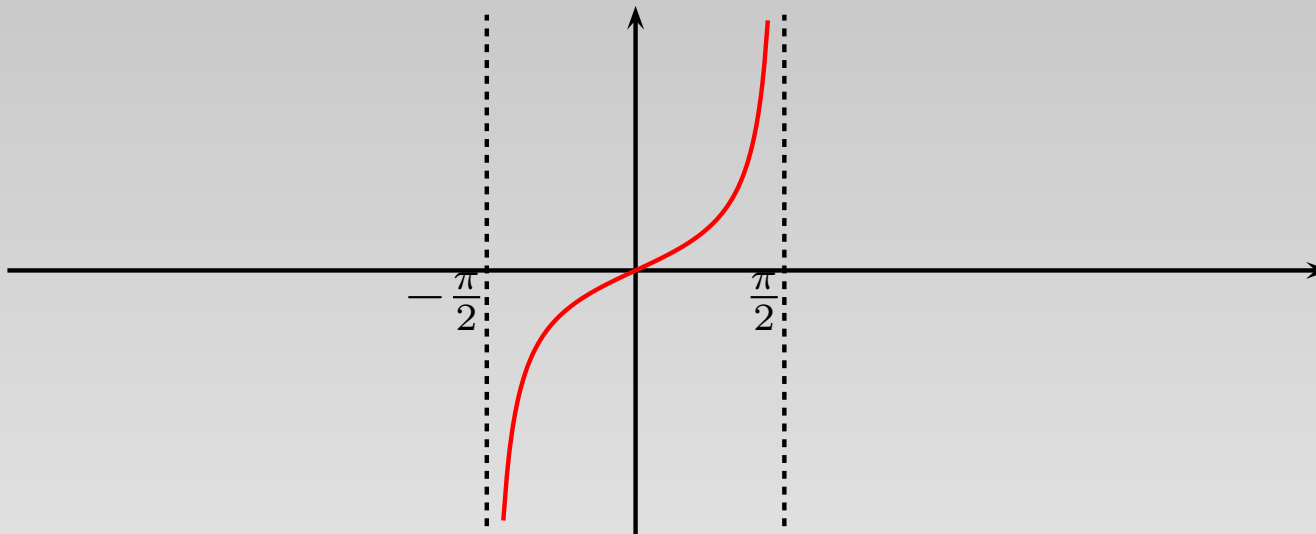


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Il grafico:



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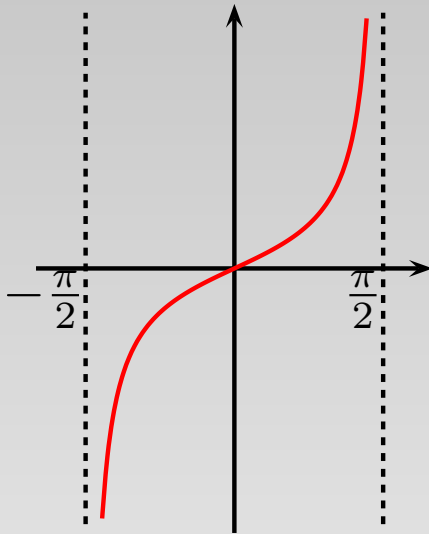


Grafico di  $tg x$

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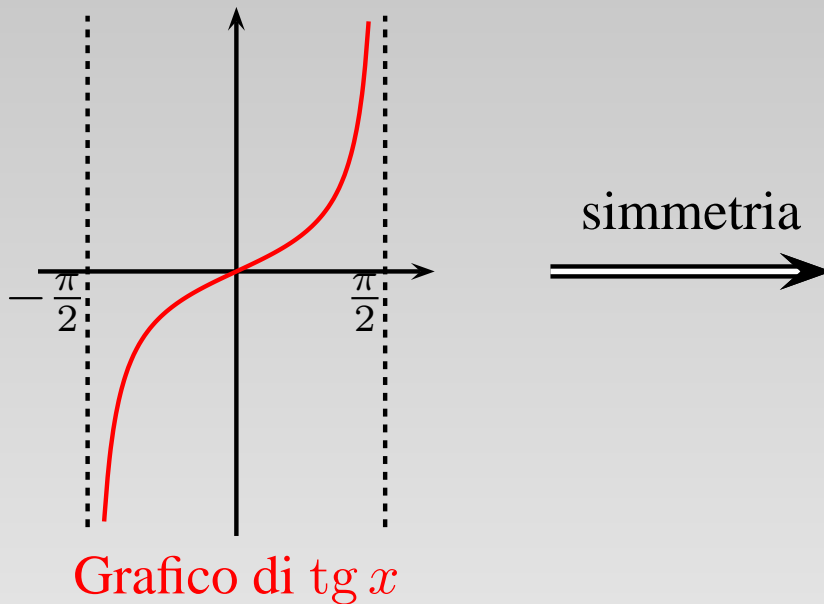
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Il grafico:



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Il grafico:





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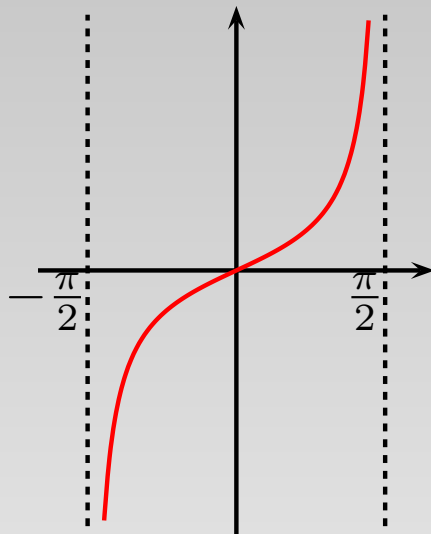


Grafico di  $tg x$

simmetria  
⇒

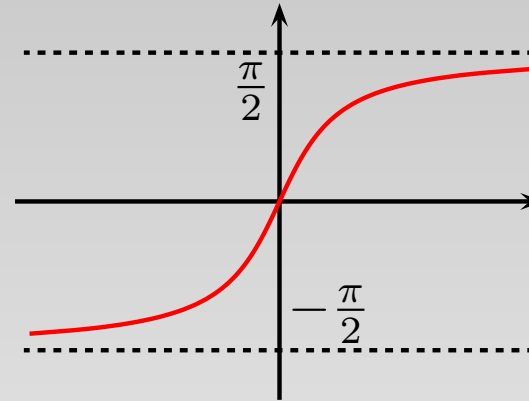


Grafico di  $arctg x$

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