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$$\lim_{x \rightarrow 0^-} \frac{1 + \operatorname{arctg} x}{1 + \cos x} =$$

$$\frac{1}{\sqrt{\sin 2x^2}} + \cos x$$

$$= \lim_{x \rightarrow 0^-} \frac{\frac{1}{x} \operatorname{arctg} x + \sin x}{\frac{1}{\sqrt{2|x|}} \sqrt{\frac{2x^2}{\sin 2x^2}} + \cos x} =$$

- 514
- 1- Island of Dr. Doom 4 dischetti: 1.44 GIOCO (DOS)
 - 5- Italian Assistant for Windows 1.0 TRADUTTORE (WINDOWS)
 - 6- Internet Kit (Tecniche Nuove)
 - 7- Intel e Online dischetto 1.44 COMUNICAZIONE (WINDOWS)

$$= \lim_{x \rightarrow 0^-} \frac{1 - \frac{x}{\arctan x} + x \sin x}{\frac{1}{\sqrt{2}} \sqrt{\frac{2x^2}{\sin 2x^2} + x \cos x}} = -\sqrt{2}$$

$$\lim_{x \rightarrow 0^+} = \sqrt{2}$$

quindi

$$\lim_{x \rightarrow 0} \text{ non esiste}$$