

Problem

Function $f: \mathbb{R} \rightarrow \mathbb{R}$ satisfies $|f(x) + f''(x)| \leq 1$ for all x . Given that $f(0) = f'(0) = 0$, show that $|f(x)| \leq x$ for all $x \geq 0$.

(Math Problem of the Week, 10/13/96)
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