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THE ℓ_p–NORM OF $C-I$, WHERE C IS THE CESÀRO OPERATOR

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Abstract. For the Cesàro operator C, it is known that $\|C-I\|_2 = 1$. Here we prove that $\|C-I\|_4 \leqslant 3^{1/4}$ and $\|C^T-I\|_4 = 3$. Bounds for intermediate values of p are derived from the Riesz-Thorin interpolation theorem. An estimate for lower bounds is obtained.

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