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On the genus of curves in a Jacobian variety

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Abstract. We prove that the geometric genus p of a curve in a very generic Jacobian of dimension g > 3 satisfies either p = g or p > 2g - 3. This gives a positive answer to a conjecture of Naranjo and Pirola. For small values of g the second inequality can be further improved to p > 2g - 2.

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