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A Liouville theorem for the Degasperis-Procesi equation

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Abstract. We prove that the only global, strong, spatially periodic solution to the Degasperis-Procesi equation, vanishing at some point (t_0, x_0) , is the identically zero solution. We also establish the analogue of such Liouville-type theorem for the Degasperis-Procesi equation with an additional dispersive term.

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