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**Solvability of a first order differential operator on the two-torus.** (English) Zbl 1302.35106  
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Summary: Global solvability on the two-torus of a first order differential operator with complex coefficients is investigated. Diophantine properties of the coefficients are linked to the solvability.

**MSC:**

**35F05** Linear first-order PDEs

**35A01** Existence problems for PDEs: global existence, local existence, non-existence

**35B10** Periodic solutions to PDEs

**Keywords:**

global solvability; degenerate elliptic; periodic solutions; vector fields; complex coefficients; Diophantine properties

**Full Text:** [DOI](#)

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