

**Landsberg, Joseph M.**

**Exterior differential systems and billiards.** (English) [Zbl 1105.58003](#)

Mladenov, Ivaïlo (ed.) et al., Proceedings of the 7th international conference on geometry, integrability and quantization, Sts. Constantine and Elena, Bulgaria, June 2–10, 2005. Sofia: Bulgarian Academy of Sciences (ISBN 954-8495-30-9/pbk). 35-54 (2006).

The aim of this note is to introduce the techniques of exterior differential systems in the context of a problem in billiards. The author generally works in the real analytic category, although all the nonexistence results discussed in the paper imply nonexistence of smooth solutions.

For the entire collection see [\[Zbl 1089.53004\]](#).

Reviewer: [Messoud A. Efendiev \(Berlin\)](#)

**MSC:**

- [58A15](#) Exterior differential systems (Cartan theory)
- [35P05](#) General topics in linear spectral theory for PDEs
- [37D50](#) Hyperbolic systems with singularities (billiards, etc.) (MSC2010)
- [37J99](#) Dynamical aspects of finite-dimensional Hamiltonian and Lagrangian systems

[Cited in 5 Documents](#)

**Keywords:**

[billiards](#); [exterior differential systems](#); [real analytic category](#)

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