

**Bony, Jean-Michel**

**Second microlocalization and propagation of singularities for semilinear hyperbolic equations.** (English) [Zbl 0669.35073](#)

Hyperbolic equations and related topics, Proc. Taniguchi Int. Symp., Katata and Kyoto/Jap. 1984, 11-49 (1986).

[For the entire collection see [Zbl 0643.00010](#).]

The interaction of three singularities along three characteristic surfaces is studied for the semilinear Klein-Gordon equation. The solution is regular outside these surfaces and the half light cone starting from their common point.

Reviewer: [G.Boillat](#)

**MSC:**

[35L67](#) Shocks and singularities for hyperbolic equations

[35L70](#) Second-order nonlinear hyperbolic equations

[35B40](#) Asymptotic behavior of solutions to PDEs

[35A30](#) Geometric theory, characteristics, transformations in context of PDEs

Cited in **5** Reviews  
Cited in **18** Documents

**Keywords:**

[interaction](#); [singularities](#); [characteristic surfaces](#); [semilinear](#); [Klein- Gordon equation](#); [regular](#); [half light cone](#)