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Existence de “fonction-père” pour les ondelettes à support compact. (Existence of father functions for compactly supported wavelets). (French) [Zbl 0752.42017](#)

C. R. Acad. Sci., Paris, Sér. I 314, No. 1, 17-19 (1992).

Summary: We show that a wavelet basis $(\psi_{j,k})$ of $L^2(\mathbb{R})$ with a Hölderian and compactly supported “mother function” ψ always results by a multi-resolution analysis. The “father function” φ has the same regularity as ψ and can be chosen with compact support.

MSC:

42C40 Nontrigonometric harmonic analysis involving wavelets and other special systems

Cited in **13** Documents

46B15 Summability and bases; functional analytic aspects of frames in Banach and Hilbert spaces

Keywords:

ondelettes; wavelet basis; mother function; multi-resolution analysis; father function; compact support