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Quantum fields and noncommutative spacetime. (English) [Zbl 1330.81184](#)

Scheck, Florian (ed.) et al., Noncommutative geometry and the standard model of elementary particle physics. Proceedings of the conference, Hesselberg, Germany, March 14–19, 1999. Berlin: Springer (ISBN 3-540-44071-2/hbk). Lect. Notes Phys. 596, 271-277 (2002).

This paper formulates physics on the noncommutative spacetime \mathcal{E} after [*S. Doplicher* et al., Commun. Math. Phys. 172, No. 1, 187–220 (1995; [Zbl 0847.53051](#))]. It is discussed how interactions and gauge theories can be introduced.

For the entire collection see [[Zbl 1027.00036](#)].

Reviewer: [Hirokazu Nishimura \(Tsukuba\)](#)

MSC:

- [81T75](#) Noncommutative geometry methods in quantum field theory
- [46L85](#) Noncommutative topology
- [58B34](#) Noncommutative geometry (à la Connes)
- [81R60](#) Noncommutative geometry in quantum theory
- [46L87](#) Noncommutative differential geometry

Full Text: [DOI](#)