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Nuclear spin-lattice relaxation rate as a link between antiferromagnetism and superconductivity in organic conductors¹ CLAUDE BOUR-BONNAIS, Departement de Physique, Universite de Sherbrooke, Sherbrooke, (QC), Canada J1K-2R1, ABDELOUAHAB SEDEKI, Departement de Physique, Universitede Sherbrooke, Sherbrooke, (QC), Canada J1K-2R1 — The interdependence of antiferromagnetism and superconductivity in the Bechgaard salts series of organic conductors is examined in the light of the anomalous temperature dependence of the nuclear spin-lattice relaxation rate. We use the renormalization group approach to the electron gas model to demonstrate that the metallic state anomaly of the nuclear relaxation rate found in the Bechgaard salts and the mechanism of passage from antiferromagnetism to superconductivity can be both described within a unified framework.

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