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Title: Rings with unipotent units

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We systematically study rings whose units are all unipotent. The first main result is that a ring R has this property if and only if R has a 2-power characteristic and the unit group of R is a (possibly infinite) 2-group. The second main result is that R is an exchange ring with all units unipotent if and only if its Jacobson radical $\mathrm{rad}\,(R)$ is nil and $R/\mathrm{rad}\,(R)$ is a Boolean ring. The rings in the second main result are precisely Diesl's strongly nil-clean rings, for which several new properties are obtained.

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