**Contact process with mobile disorder** RONALD DICKMAN —
I study scaling properties of the absorbing-state phase transition in the one-
dimensional contact process with mobile disorder via numerical simulation and the
pair approximation. In this model, the dilution sites are permanently inactive but
are free to diffuse, exchanging positions with the other sites, which host a basic
contact process. Even though the disorder variables are not quenched, the criti-
cal behavior is drastically affected: the critical exponent $\delta$ and the ratio $\beta/nu_\perp$
are found to vary continuously with vacancy concentration and hopping rate. At
the critical point, the mean lifetime $\tau$ scales with system size $L$ as $\tau \sim (\ln L)^\zeta$,
rather than as a power law; the anomalous scaling of the lifetime is associated with
fluctuations in the vacancy density.

Ronald Dickman
UFMG