



ELSEVIER

9 April 2001

Physics Letters A 282 (2001) 132

PHYSICS LETTERS A

www.elsevier.nl/locate/pla

## Erratum

# Erratum to “Monte Carlo simulations of critical dynamics with conserved order parameter” [Phys. Lett. A 277 (2000) 257] <sup>☆</sup>

B. Zheng <sup>a,b</sup>

<sup>a</sup> *FB Physik, Universität Halle, 06099 Halle, Germany*

<sup>b</sup> *Institute of Theoretical Physics, Academia Sinica, 100080 Beijing, PR China*

We regret that the data for Fig. 1 are obtained with an incorrect updating scheme. The discussions and conclusions based on Fig. 1 must be modified. A correct version of Fig. 1 is displayed in this Erratum. The scaling behavior described by Eq. (1) is observed. The dynamic exponent  $z$  depends slightly on the time  $t$ . From our data, we could only conclude that  $z$  is 3.95(10). This is somewhat bigger than the theoretical value  $z = 4 - \eta = 3.75$  calculated with the  $\phi^4$  theory. Probably there exist still corrections to scaling. To perform simulations to larger time  $t$ 's and remove these corrections to scaling, however, is not so easy since  $z$  has a big value. From the auto-correlation, we estimate the exponent  $\lambda = 0.495(10)$ . It is consistent with the scaling relation  $\lambda = d/z$  derived with the  $\phi^4$  theory (formally  $\lambda = d/z - (4 - z - \eta - \eta_0/2)/z = d/z + \eta_0/2z$ , but  $\eta_0 = 0$ ).

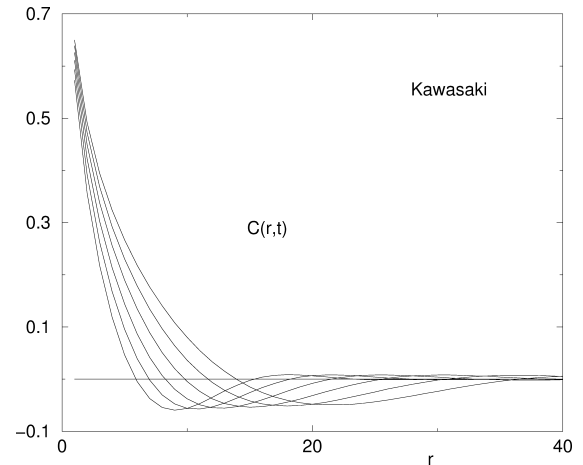


Fig. 1. Correlation functions  $C(r, t)$  for Kawasaki dynamics with the heat-bath algorithm. The lattice size is  $L = 512$ . From left to right, curves correspond to the time  $t = 2000, 4000, 8000, 16000, 32000$  and  $64000$ .

<sup>☆</sup> PII of original article: S0375-9601(00)00658-7.

E-mail address: zheng@hera.physik.uni-halle.de (B. Zheng).