Fig 1.- Partitioning of a 64 x 64 lattice of spins into 16 cell domains. Each cell domain is assigned to a processor.
Fig. 2.- Initial and final stages of the Local-Labeling procedure for one processor. The initial condition on top shows the sites connected by percolation (connectivity) bonds. The second figure shows the result of the local labeling where each site points to its local root. At the bottom the local roots are globalized (i.e., made unique over the whole system) and boundary pointers are set up for the relaxation process.
Fig. 3.- The global relaxation process set up is shown for a subsystem of four processors. Each processor exchanges root labels with nearest neighbors. Labels are compared and set to minimum values. The process is repeated until no more changes in the labels are detected.
Fig. 4.- Local, relaxation and total times as a function of lattice size on a 64-node CM-5E supercomputer.
Fig. 5.- Speed-up function for different lattice sizes. The straight line \((S_p = p)\) shows the ideal linear speed-up.
Fig. 6.- Efficiency \( (S_p/p) \) function for different lattice sizes.
Fig. 7.- Universal form of the efficiency function.
Fig. 8.- Magnetization relaxation data for different lattice sizes.
Fig. 9.- Energy relaxation data for different lattice sizes.
Fig. 10.- Time dependent $z_M(t)$ exponent computed from the instantaneous slope as a function of $1/t$. 
Fig. 11.- Time dependent $z_E(t)$ exponent computed from the instantaneous slope as a function of $1/t$. 
Fig. 12.- Auxiliary function $g_M(t)$. The solid line shows the linear least-squares fit.
Fig. 13.- Auxiliary function $g_E(t)$. The solid line shows the linear least-squares fit.
Fig. 14.- Exponent $b_M(t)$ as a function of time.
Fig. 15.- Exponent $b_E(t)$ as a function of time.

□ Using $\lambda_E$ and $\Delta_E$ from $g_E$ fit

--- $\langle b_E \rangle = 0.031$
Fig. 16.- Magnetization relaxation data for $L=32768$. The model (ansatz) parameterized with the values obtained in this paper and Hackl et al values are also shown.
Fig. 17.- Energy relaxation data for $L=32768$. The model (ansatz) parameterized with the values obtained in this paper and Hackl et al values are also shown.