izations of these systems — e.g., helium adsorbed on krypton plated graphite[25] — are the first known examples of supersymmetric field theories in nature.

We[26] later showed that the fermionic soliton field of the critical Ising model ($c = 1/2$) is the Nambu-Goldstino of spontaneously broken supersymmetry in the tricritical Ising model ($c = 7/10$). We noted that one of the relevant trajectories leaving the $c = 7/10$ tri-critical Ising model fixed point preserves supersymmety, but that the supersymmetry could be spontaneously broken away from the fixed point, because unitarity allows no supersymmetric states of the Ramond algebra. The resulting massless fermion mode, the nambu-goldstino, becomes the massless free fermion of the Ising model. This is a striking example of how supersymmetry puts rigid constraints on the global topology of the renormalization group flow.

We also completed the study of the supersymmetric $c = 1$ gaussian model by showing that it corresponded to the $c = 1$ critical Ashkin-Teller model at a special value of the coupling[26,27]. This example of supersymmetric critical phenomena is experimentally more accessible than the tri-critical Ising model because there is a supersymmetry index which prevents the supersymmetry from being spontaneously broken away from the critical point.

The constraint of modular invariance in the super case has consequences very similar to its effect in the ordinary case. Our student *Kastor* [28] showed it was a powerful constraint. Capelli[29] formulated a comprehensive classification conjecture for superconformal field theory.

Besides the work on classification of critical phenomena we should mention a number of other important applications of conformal invariance to two dimensional critical phenomena. Cardy[30] has used it to explain finite size scaling results. He, Blote and Nightingale[31] and Affleck[32] explained the universal finite size scaling correction proportional to c. Affleck[33] did beautiful work explaining the behavior of quantum spin chains using Kac-Moody algebras. Cardy also fit the Yang-Lee edge[34] and surface critical phenomena[35] into the picture. He and Ludwig,[36] and Zamolodchikov[37] did an ingenious perturbation theory in $c - 1$,