

**AIP Conference Proceedings**

Series Editor: Hugh C. Wolfe

**No. 27**

**Topics in Statistical Mechanics  
and Biophysics:**

**A Memorial to Julius L. Jackson**

(Wayne State University—1975)

Editor

**R.A. Piccirelli**

**American Institute of Physics**

New York

1976

TOPICS IN STATISTICAL MECHANICS AND BIOPHYSICS:  
A Memorial to Julius L. Jackson

Table of Contents

Prologue

"The Contraction of Muscle as a Stochastic Process" A. G. De Rocco	1
"On the Re-Normalization Group and the Universality of Critical Exponents" M. S. Green and P. Shukla	19
"On a Nonlinear Perturbation Theory without Secular Terms II. Carleman Embedding of Nonlinear Equations in an Infinite Set of Linear Ones" E. W. Montroll and R. H. G. Helleman	75
"On Generalized Hydrodynamics" I. Oppenheim	111
"Application of Nonlinear Stability Theory to the Study of the Effect of Diffusion on Predator-Prey Interactions" L. A. Segel and S. A. Levin	123
"Fluctuations in Continuous Systems" N. G. van Kampen	153
"Interactions of Limit Cycle Oscillators" R. Zwanzig	187
Appendices	
A) List of publications of Julius L. Jackson	201
B) "The Car Parking Problem: A Reminiscence of Julius Jackson" F. Gornick	207