CONTENTS

TECHNICAL PAPERS

125 Experimental Determination of the Decay Constants and Abundances of Delayed Neutrons by Means of Reactor Noise Analysis
Ricardo Diniz, Adimir dos Santos

142 Calculating the Effective Delayed Neutron Fraction with Monte Carlo
Robin Klein Meulekamp, Steven C. van der Marck

149 Mixed-Hybrid Transport Discretization Using Even and Odd $P_N$ Expansions
S. Van Criekingen, E. E. Lewis, R. Beauwens

164 A Diffusion Synthetic Acceleration Method for Block Adaptive Mesh Refinement
Robert C. Ward, Randal S. Baker, Jim E. Morel

180 Variational Estimates of Internal Interface Perturbations and a New Variational Functional for Inhomogeneous Transport Problems
Jeffrey A. Favorite

197 Particle Swarm Optimization in Reactor Core Design
Roberto P. Domingos, Roberto Schirru, Cláudio M. N. A. Pereira

204 A Physics Study of a 600-MW(thermal) Gas-Cooled Fast Reactor
Hangbok Choi, Gérald Rimpault, Jean C. Bosq

219 Analysis of a BWR Turbine Trip Experiment by Entire Plant Simulation with Spatial Kinetics
Yoshiro Asahi, Tomoaki Suzudo, Nobuyuki Ishikawa, Toru Nakatsuka

236 Excitation Behavior of Rare Gases in Low-Energy Plasma
Hiroaki Ogawa, Kiyoshi Kiuchi