

Communications in  
**Mathematical  
Physics**

Volume 157 Number 1 1993

- B. Zhang Convergence of the Godunov Scheme for a Simplified One-Dimensional Hydrodynamic Model for Semiconductor Devices 1
- Y. A. Gordon, V. Jakšić, S. Molčanov, B. Simon Spectral Properties of Random Schrödinger Operators with Unbounded Potentials 23
- W. Oevel, W. Strampp Constrained KP Hierarchy and Bi-Hamiltonian Structures 51
- H. W. Wiesbrock Half-Sided Modular Inclusions of von-Neumann-Algebras 83
- A. Nabutovsky, R. Ben-Av Noncomputability Arising in Dynamical Triangulation Model of Four-Dimensional Quantum Gravity 93
- T. Hollowood, J. L. Miramontes Tau-Functions and Generalized Integrable Hierarchies 99
- A. Kato, Y.-H. Quano, J. Shiraishi Free Boson Representation of  $q$ -Vertex Operators and their Correlation Functions 119
- S. Cecotti, C. Vafa Ising Model and  $N = 2$  Supersymmetric Theories 139
- M. Flohr  $\mathcal{W}$ -Algebras, New Rational Models and Completeness of the  $c = 1$  Classification 179

Indexed in *Current Contents*

Evaluated and abstracted for *PHYS* on *STN*

CMPHAY 157 (1) 1–212

October (II) 1993

Printed on acid-free paper



Springer International



# Springer L<sup>A</sup>T<sub>E</sub>X and plain-T<sub>E</sub>X macros

We can use your T<sub>E</sub>X files directly for phototypesetting if you have used our macros. Makropackages are available for the following journals:

***L*Jour1** L<sup>A</sup>T<sub>E</sub>X styles for Acta Informatica, Applicable Algebra in Engineering, Communication and Computing, Archive for Mathematical Logic, Astronomy & Astrophysics Reviews, Calculus of Variations, Communications in Mathematical Physics, Continuum Mechanics and Thermodynamics, Economic Theory, Inventiones mathematicae, Journal of Evolutionary Economics, Journal of Mathematical Biology, Manuscripta mathematica, Mathematische Annalen, Mathematische Semesterberichte, Mathematische Zeitschrift, Numerische Mathematik, Probability Theory and Related Fields, Statistical papers, Theoretica Chimica Acta

***P*Jour1g** global plain T<sub>E</sub>X packages for all journals mentioned above; ***P*Jour 1** may also still be used. All packages are available via mailserver, FTP server or on DOS diskettes.

## Mailserver

Send an e-mail message to [svserv@vax.ntp.springer.de](mailto:svserv@vax.ntp.springer.de) which must contain one (several) of the following commands:

***L*Jour1** `get /tex/latex/ljour1.zip`  
***P*Jour1g** `get /tex/plain/pjour1g.zip`

In order to be transmitted ungarbled via the net, the files are pkzipped and unencoded. The line `get /tex/help-tex.txt` in your e-mail to `svserv` will send you a file explaining how to unpack the files you receive. Please do not send regular e-mail to this address.

## FTP server

The internet address is 192.129.24.12 ([trick.ntp.springer.de](http://trick.ntp.springer.de)) The username is FTP or ANONYMOUS and the files are in the directory `/pub/tex`

## Diskettes

To get the macro files and the AMS fonts (when needed) on 3.5" DOS diskettes please write to:

Springer-Verlag, Journal Production,  
Tiergartenstr. 17  
D-69121 Heidelberg, Germany  
e-mail: [springer@vax.ntp.springer.de](mailto:springer@vax.ntp.springer.de)  
FAX number: x 49 6221 487625

Please indicate clearly which macro package you need and the journal for which your paper is intended.

**Use our L<sup>A</sup>T<sub>E</sub>X and plain-T<sub>E</sub>X macros to prepare your article for this and for other Springer journals.**



---

## Springer-Verlag and the environment

**W**e at Springer-Verlag firmly believe that an international science publisher has a special obligation to the environment, and our corporate policies consistently reflect this conviction.

**W**e also expect our business partners – paper mills, printers, packaging manufacturers, etc. – to commit themselves to using environmentally friendly materials and production processes.

**T**he paper in this journal is made from low- or no-chlorine pulp and is acid free, in conformance with international standards for paper permanency.