

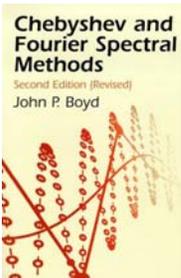


LIBRARY LEADS



New Items in the Library

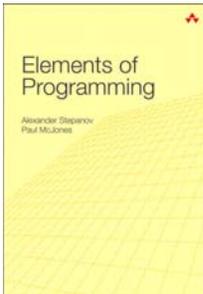
- **Chebyshev and Fourier Spectral Methods: Second Revised Edition**



Text focuses on use of spectral methods to solve boundary value, eigenvalue, and time-dependent problems, but also covers Hermite, Laguerre, rational Chebyshev, sinc, and spherical harmonic functions, as well as cardinal functions, linear eigenvalue problems, matrix-solving methods, coordinate transformations, methods for unbounded intervals, spherical and cylindrical geometry, and much more.

- **Elements of Programming**

This book's major premise is that practical programming, like other areas of science and engineering, must be based on a solid mathematical foundation. The book shows that algorithms implemented in a real programming language, such as C++, can operate in the most general mathematical setting. For example, the fast exponentiation algorithm is defined to work with any associative operation. Using abstract algorithms leads to efficient, reliable, secure, and economical software.



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Continued on Page 2

Betty Petersen Memorial Library, located at Room 103 in the World Weather Building, has a number of different services for NOAA patrons.

- **Online access to Journals**

All computers within the World Weather Building should have access to electronic journals and databases including JSTOR, American Geophysical Union journals, Web of Science, Quarterly Journal of the Royal Meteorological Society

- **Print Journal Alerts**

Have a specific journal you're interested in that the library receives? Want to know when they arrive? Email your librarian (jan.thomas@noaa.gov) for a list of titles!

- **Interlibrary Loan**

Can't find the journal article you're looking for? Library doesn't have a paper subscription? No problem! Just email the citation to your friendly librarian and a request to get the article from another library will be generated. Depending on the library, your request could be filled within 24 hours!



- **Public Access copying, printing**

Peruse journals at the library and copy articles right in the comfort confines. There is also a public access computer to use the catalog (<http://www.lib.noaa.gov/uhtbin/webcat/>) or check out electronic journals. Put books on hold by emailing jan.thomas@noaa.gov.

- **Orientations**

Library orientation can help you familiarize yourself with library resources. Tour the library stacks and see what is available to you right from your World Weather Building desktop. Stop by or email to set up an appointment.

CALLING ALL PRESENTERS!

The library is attempting to continue its Library Technical Seminars to help promote potential topics that might be interesting your co-workers within the World Weather Building.

If you are interested in presenting on any of the following topics, or topics that

you think may be of interest, please contact:

Jan.thomas@noaa.gov
301-763-8266

Topics of interest:

- Java
- Python

- Fortran
- C, C++
- Perl
- Mathematica
- SQL
- Unix/Linux Shell Scripting

NOAA IN THE NEWS

Fishing reopened in 5,130 square miles of Gulf

[Link to article](#)

September 2, 2010

National Oceanic and Atmospheric Administration officials said Thursday about 5,130 square miles of federal waters from Pensacola west through Alabama and Mississippi are open to fishing and shrimp harvesting.

Why wartime wrecks are slicking time bombs

[Link to article](#)

By Mick Hamer
September 7, 2010

Thousands of ships sunk in the second world war are seeping oil – and with their rusty tanks disintegrating, "peak leak" is only a few years away.

An Audacious Decision in Crisis Gets Cautious Praise

[Link to article](#)

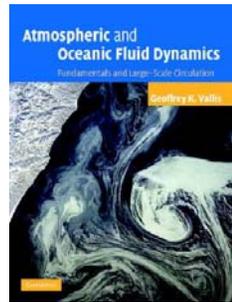
By Eli Kintisch
August 13, 2010

How BP came to spray 1.1 million gallons of chemical dispersants a mile beneath the ocean surface is a story of scientists turning to desperate measures during desperate times. And the government's decision to let BP do so, among the most gutsy calls of the entire *Deepwater Horizon* saga, was a classic case of pitting the devil you know against the devil you don't.

If you would like to submit a news item, please send it via email to jan.thomas@noaa.gov.

- **Atmospheric and Oceanic Fluid Dynamics: Fundamentals and Large-Scale Circulation**

This textbook provides a comprehensive unified treatment of atmospheric and oceanic fluid dynamics. The book introduces the fundamentals of geophysical fluid dynamics, including rotation and stratification, vorticity and potential vorticity, and scaling and approximations. It discusses baroclinic and barotropic instabilities, wave-mean flow interactions and turbulence, and the general circulation of the atmosphere and ocean.



THIS MONTH IN WEATHER HISTORY

- **09/01/1979**

A home in Centerville TN was hit by lightning and totally destroyed. It marked the third time that the house had been hit by lightning since being built in 1970.

- **09/13/1922**

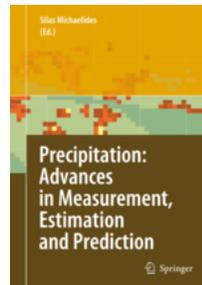
The temperature at El Azizia in Libya soared to 136 degrees to establish a world record. To make matters worse, a severe ghibi (dust storm) was in progress.

- **09/21/1894**

A heavy chicken house, was picked up by a tornado and wedged between two trees. The hens were found the next day sitting on their eggs in the chicken house, with no windows broken, as though nothing had happened.

- **Precipitation: Advances in Measurement, Estimation and Prediction**

This book presents modern methods in the measurement, estimation and prediction of precipitation are presented followed by the integration of the three themes for improved precipitation estimates and prediction as well as calibration and fine-tuning of methods. It describes advances in in-situ ground based instruments, in remote sensing methods of precipitation from space, ground and underwater observations and state of the art methods of precipitation now-casting and forecasting,



ELECTRONIC RESOURCE SPOTLIGHT

JSTOR

NOAA has a digital subscription to the electronic archive known as JSTOR. There are over 1000 journals available through our subscription, including areas of research such as Statistics, Aquatic Sciences, Mathematics and many more. JSTOR offers PDF and full text views of journals such as Limnology and Oceanography and Statistical Science as well as a



newly redesigned search interface. Visit <http://www.jstor.org/> for more details. Note, you should have access to this service within the World Weather Building. If you do not, please email your IP address to jan.thomas@noaa.gov