

CONTENTS

Nonlinear Adsorption in Layered Porous Media Flow <i>by Sheng H. Lin</i>	951
Equilibrium Thickness of Ice Jams <i>by Jean-Claude Tatinclaux</i>	959
Longitudinal Dispersion with Dead Zones <i>by Eric M. Valentine and Ian R. Wood</i>	975
Comparison of Annual Streamflow Models <i>by Stephen J. Burges and Dennis P. Lettenmaier</i>	991
Environmental Impacts of Hydroelectric Power Plants <i>by Farouk M. El-Shamy</i>	1007
Finite Element Approach to Waves Due to Landslides <i>by Christopher G. Koutitas</i>	1021
Calculators in Timer-Counters for Current Meters <i>by Stephen R. Kormilo</i>	1031
Unified View of Wash Load and Bed Material Load <i>by Emmanuel Partheniades</i>	1037
Some Aspects of Quadratic Weirs <i>by K. Keshava Murthy and K. Gopalakrishna Pillai</i>	1059
Basic Principles of River Hydraulics <i>by Gary Parker and Alvin G. Anderson</i>	1077

→

This Journal is published monthly by the American Society of Civil Engineers. Publications office is at 345 East 47th Street, New York, N.Y. 10017. Address all ASCE correspondence to the Editorial and General Offices at 345 East 47th Street, New York, N.Y. 10017. Allow six weeks for change of address to become effective. Subscription price to members is \$12.00. Nonmember subscriptions available; prices obtainable on request. Second-class postage paid at New York, N.Y. and at additional mailing offices. GT, HY.

The Society is not responsible for any statement made or opinion expressed in its publications.

TECHNICAL NOTES

Proc. Paper 13172

Armoring Process in Degrading Streams
by Ramchandra J. Garde, K. Al-Shaikh Ali, and Serge Diette 1091

Historical Note on the Hydrologic Cycle
by Subhash C. Mehrotra 1096

Subroutine for Settling Velocities of Spheres
by Michael B. Sonnen 1097

DISCUSSION

Proc. Paper 13165

Instability in Tidal Flow Computational Schemes, by T. John Weare
(May, 1976. Prior Discussions: Dec., 1976, Feb., 1977).
closure 1105

Transient Dispersion in Uniform Porous Media Flow, by Hung Tao
Shen (June, 1976. Prior Discussions: Dec., 1976, Mar., 1977).
closure 1105

Length of Hydraulic Jump, by Subhash C. Mehrotra (July, 1976.
Prior Discussion: Mar., 1977).
closure 1106

Experimental Investigation of Flow over Side Weirs,^a by Ahmed
El-Khasnab and Kenneth V. H. Smith (Sept., 1976. Prior Discussions:
May, Aug., 1977).
by Fred W. Blaisdell 1107

Quadratic Finite Elements in Shallow Water Problems, by Paul W.
Partridge and Carlos A. Brebbia (Sept., 1976. Prior Discussion: June,
1977).
closure 1108

Hydraulic Transport of Copper Tailings, by Pablo Kleiman (Oct.,
1976).
errata 1109

^aDiscussion period closed for this paper. Any other discussion received during this discussion period will be published in subsequent Journals.

Wet and Dry Periods of Annual Flow Series,^a by Zekâi Şen (Oct., 1976). by <i>Jerson Kelman and Pedro Guerrero</i>	1109
Flow at Grade-Break from Mild to Steep Slopes,^a by Richard G. Weyermuller and M. Gamal Mostafa (Oct., 1976. Prior Discussion: Aug., 1977). by <i>Nagindas M. Shah and Kanwar S. Satija</i>	1110
Resistance Equation for Alluvial-Channel Flow,^a by Durl E. Burkham and David R. Dawdy (Oct., 1976. Prior Discussion: May, 1977). by <i>John A. Roberson and Edwin O. Engmann</i>	1111
Seasonal and Nonseasonal ARMA Models in Hydrology,^a by Pen-Chih Tao and Jacques W. Delleur (Oct., 1976). by <i>Mehmetçik Bayazit and Zekâi Şen</i>	1114
Hydraulics of Slope Erosion by Overland Flow,^a by Saburo Komura (Oct., 1976. Prior Discussion: June, 1977). by <i>Anand Prakash</i>	1115
Stability of Channel Beds by Armoring,^a by William C. Little and Paul G. Mayer (Nov., 1976. Prior Discussion: July, 1977). by <i>Chesley J. Posey</i>	1118
by <i>Mehmetçik Bayazit</i>	1119

INFORMATION RETRIEVAL

The key words, abstract, and reference "cards" for each article in this Journal represent part of the ASCE participation in the EJC information retrieval plan. The retrieval data are placed herein so that each can be cut out, placed on a 3 × 5 card and given an accession number for the user's file. The accession number is then entered on key word cards so that the user can subsequently match key words to choose the articles he wishes. Details of this program were given in an August, 1962 article in CIVIL ENGINEERING, reprints of which are available on request to ASCE headquarters.

^aDiscussion period closed for this paper. Any other discussion received during this discussion period will be published in subsequent Journals.