

| | |
|-------------------------|---|
| 1. Record Nr. | UNINA9910478914103321 |
| Titolo | Biological fluid dynamics : modeling, computations, and applications : AMS Special Session, Biological Fluid Dynamics : Modeling, Computations, and Applications : October 13, 2012, Tulane University, New Orleans, Louisiana / / Anita T. Layton, Sarah D. Olson, editors |
| Pubbl/distr/stampa | Providence, Rhode Island : , : American Mathematical Society, , 2014 ©2014 |
| ISBN | 1-4704-2040-6 |
| Descrizione fisica | 1 online resource (240 p.) |
| Collana | Contemporary Mathematics, , 1098-3627 ; ; 628 |
| Disciplina | 612/.01522 |
| Soggetti | Hemodynamics Rheology (Biology) Body fluid flow Fluid dynamics Electronic books. |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references at the end of each chapters. |
| Nota di contenuto | ""Cover""; ""Title page""; ""Contents""; ""Preface""; ""Simulating Biofluid-Structure Interactions with an Immersed Boundary Framework a€?A Review""; ""1. Introduction""; ""2. Numerical formulations""; ""3. Recent advances""; ""4. Applications""; ""5. Discussion""; ""6. Summary""; ""References""; ""The Development and Advances of the Immersed Finite Element Method""; ""1. Introduction""; ""2. Kinematics and assumptions""; ""3. The Immersed Finite Element Method""; ""4. Semi-implicit IFEM""; ""5. The Modified IFEM""; ""6. Examples""; ""7. Conclusion""; ""8. Acknowledgement""; ""References"" ""Simulating Mucociliary Transport Using the Method of Regularized Stokeslets""""1. Introduction""; ""2. Methods""; ""3. Results""; ""4. Conclusions""; ""References""; ""A Regularization Method for the Numerical Solution of Doubly-Periodic Stokes Flow""; ""1. Introduction""; ""2. The Stokeslet""; ""3. Greena€?s Function for Doubly-Periodic Stokes Flow""; ""4. Regularization Method""; ""5. Results""; ""6. Conclusions and Future Studies""; ""References""; ""Dynamics of a |

primary cilium in time-periodic flows"; "1. Introduction"; "2. Formulation"; "3. Results"
"4. Discussion and Conclusion"" Acknowledgments"; "References";
"Motion of Filaments with Planar and Helical Bending Waves in a Viscous Fluid"; "1. Introduction"; "2. Methods"; "3. Results"; "4. Discussion"; "5. Conclusion"; "References"; "Numerical Study of Scaling Effects in Peristalsis and Dynamic Suction Pumping"; "1. Introduction"; "2. Methods"; "3. Results"; "4. Conclusion"; "5. Acknowledgements"; "References"; "Multi-Bond Models for Platelet Adhesion and Cohesion"; "1. Introduction"; "2. Immersed Boundary Method"
"3. Force required to immobilize platelet"" 4. Early platelet-vessel wall adhesion with GPIb-vWF bonds"; "5. Platelet activation and $\{\}$ a?? bonds"; "6. Discussion"; "7. Acknowledgements"; "References";
"Effects of Grouping Behavior, Pulse Timing, and Organism Size on Fluid Flow Around the Upside-Down Jellyfish *Cassiopea xamachana*";
"1. Introduction"; "2. Materials and Methods"; "3. Results"; "4. Discussion/Conclusions"; "References"; "Impacts of Facilitated Urea Transporters on the Urine-Concentrating Mechanism in the Rat Kidney"; "1. Introduction"
"2. Model Formulation"" 3. Model Results"; "4. Discussion";
"References"; "Feedback-Mediated Dynamics in a Model of Coupled Nephrons with Compliant Short Loop of Henle"; "1. Introduction"; "2. Mathematical Model"; "3. Characteristic Equation"; "4. Results"; "5. Discussion"; "References"; "Back Cover"
