

Review of articles for FY2M class
J. Erhart

Scopus – fluids

I., Aviani, Ivica, N., Erceg, Nataša
Measuring g using buoyancy: a simple and accurate method for high-school physics lab
(2025) *Physics Education*, 60 (5), art. no. 055015

S., Landi, Salmon
Displaced volume versus submerged volume in the floating of a solid
(2025) *Physics Education*, 60 (1), art. no. 015020

A., Matsutani, Akihiro
Observation of gas flow around plants using Schlieren imaging system and high-refractive-index gas
(2024) *Physics Education*, 59 (4), art. no. 045013

Y., Wei, Yajun, X., Chen, Xiaotong, W., Luo, Wanrong, Q., Zou, Qingsong, X., Zhang, Xiaopan
Innovative flight control explanation and demonstration: bridging theory and practice in secondary education
(2024) *Physics Education*, 59 (3), art. no. 035017

M.S., Singh, Mamraj Sanjoy, D., Puri, Dinesh, N., Jakhar, Narendra
Motion of a sphere in a viscous fluid under controlled acceleration
(2024) *Physics Education*, 59 (1), art. no. 015012

F.A., Orjuela, Fredy A., J.E., García-Farieta, Jorge Enrique, H.J., Hortúa, Héctor J., E., Munévar, E.
A comprehensive modelling and experimental approach for damped oscillations in U-tubes via Easy JavaScript Simulations
(2023) *Physics Education*, 58 (5), art. no. 055007

V.V., Ivchenko, Vladimir V.
The butterfly effect: a rising bubble in an enclosed volume
(2023) *Physics Education*, 58 (3), art. no. 035026

E., Giulotto, Enrico, M., Malgieri, Massimiliano
Suggestions on the teaching of atmospheric pressure at university and secondary school levels
(2022) *Physics Education*, 57 (6), art. no. 065022

H.E., Mohottala, Hashini E., B., Higgins, Brent
Ideal gas law and fluid dynamics simulation: characterizing an air bubble rising from the bottom of a lake
(2022) *Physics Education*, 57 (5), art. no. 055034

S., Oss, Stefano
Making jets of air visible in the infrared
(2022) *Physics Education*, 57 (4), art. no. 043001

R., Maungchang, Rasimate, P., Dam-O, Punsiri
Physics meets mathematics: A dam model
(2021) *Physics Education*, 56 (5), art. no. 055009

A., Wadhwa, Ajay
Study of fluid motion in different configurations and temperatures
(2021) *Physics Education*, 56 (4), art. no. 045009

A.L., de Oliveira, Alexandre Lopes, V.L.B.D., de Jesus, Vitor L.B.D., D.G., Sasaki, D. G.G.
Video analysis of the fall and vertical downward launch of Styrofoam balls with air drag
(2021) *Physics Education*, 56 (4), art. no. 045005

M.G., Nugraha, Muhamad Gina, U., Purwana, U., S., Parwati, S., K.H., Kirana, Kartika Hajar
Homemade experiment for understanding the fluid continuity principle
(2021) *Physics Education*, 56 (3), art. no. 035013

F., Savall-Alemany, Francisco, M., Esparza-García, M., S., Rosa-Cintas, Sergio, J., Martínez-Torregrosa, Joaquín
The construction of a water clock: A proposal for teaching fluid physics in introductory courses
(2021) *Physics Education*, 56 (3), art. no. 033004

A., Agliolo Gallitto, Aurelio, R., Zingales, Roberto, O.R., Battaglia, Onofrio Rosario, C., Fazio, Claudio
An approach to the venturi effect by historical instruments
(2021) *Physics Education*, 56 (2), art. no. 025007

E.A., Lima, E. A., R.S., Dutra, R. S., P.V.S., Souza, Paulo Victor Santos
Studying the Oobleck with video-analysis
(2020) *Physics Education*, 55 (4), art. no. 045021

T., Tél, Tamás, M., Vincze, Miklós, I.M., Jánosi, Imre Miklós
Vortices capturing matter: a classroom demonstration
(2020) *Physics Education*, 55 (1), art. no. 015007

L.A., Baker, Lewis A., A.M., Taylor, Alison M.
A simple and affordable experiment to determine Reynolds number
(2019) *Physics Education*, 54 (6), art. no. 063004

P.R., Espindola, Paulo Renato, C.R., Cena, Cícero Rafael, D.C., Alves, Diego C.B., D.F., Bozano, Doroteia F., A.M., Goncalves, A. M.B.
Use of an Arduino to study buoyancy force
(2018) *Physics Education*, 53 (3), art. no. 035010

R., Holubová, Renata
Physics of non-Newtonian fluids and interdisciplinary relations (biology and criminology)
(2018) *Physics Education*, 53 (2), art. no. 025002

E., Benedetto, Elmo

Melting ice

(2018) *Physics Education*, 53 (1), art. no. 013002

G.U., Unal Coban, Gul Ual, A., Büber, Ayse, M.K., Sağlam, Merve Kocagül

Revisiting the 'unmixing experiment' through argumentation

(2017) *Physics Education*, 52 (5), art. no. 055009

J.T., Fingerut, Jonathan T., N., Johnson, Nicholas, E., Mongeau, Eric, P., Habdas, Piotr

The effect of shape on drag: A physics exercise inspired by biology

(2017) *Physics Education*, 52 (4), art. no. 045025

G., Pahwa, Gantavya, R.G., Pingali, Rushil G., A.K., Khubchandani, Aashish K., E., Roy, Ekansh, R.R., Mudaliyar, Roshni R., R.P., Mudaliyar, Rajesh P.

Investigating the stability of a bottle filled with different amounts of fluid

(2017) *Physics Education*, 52 (3), art. no. 035008

B., Stojadinović, Bojana, Z., Nestorović, Zorica, B., Djurić, Biljana, T., Tenne, Tamar, D., Zikich, Dragoslav, D.D., Žikić, Dejan D.

Laboratory model of the cardiovascular system for experimental demonstration of pulse wave propagation

(2017) *Physics Education*, 52 (2), art. no. 025001

S.V., Kontomaris, Stylianos Vasileios, A., Malamou, Anna

A simple explanation of the classic hydrostatic paradox

(2016) *Physics Education*, 51 (4), art. no. 045010

E.R., Marciotto, Edson Roberto

Classic Bernoulli's principle derivation and its working hypotheses

(2016) *Physics Education*, 51 (4), art. no. 045005

M.K., Yadav, Manoj Kumar

Clarifying the misconception about the principle of floatation

(2014) *Physics Education*, 49 (5), pp. 523 - 525

M., Vollmer, Michael, K.P., Möllmann, Klaus Peter

Oscillating droplets and incompressible liquids: Slow-motion visualization of experiments with fluids

(2012) *Physics Education*, 47 (6), pp. 664 - 679

A.P., Wheeler, Andrew P.S.

Physics on tap

(2012) *Physics Education*, 47 (4), pp. 403 - 408

T., López-Arias, Teresa, L.M., Gratton, Luigi Maria, G., Zendri, Giuliano, S., Oss, Stefano

Using jets of air to teach fluid dynamics

(2011) *Physics Education*, 46 (4), pp. 373 - 375

V., Lekholm, Ville, G., Rämme, Göran, G., Thornell, Greger

Seeing the invisible with schlieren imaging

(2011) *Physics Education*, 46 (3), pp. 294 - 297

T., McGoldrick, Thomas
Physics of flow in the beauty therapy salon
(2006) *Physics Education*, 41 (4), art. no. 005, pp. 323 - 327

M.J., O'Shea, Michael J.
Fluid flow, Newton's second law and river rescue
(2006) *Physics Education*, 41 (2), pp. 137 - 143

L.M., Gratton, Luigi Maria, S., Oss, Stefano
Forces and holes in liquid surfaces and soap films: A simple measurement of a not-so-simple effect
(2004) *Physics Education*, 39 (6), pp. 509 - 513

B.M., Valiyov, Boris M., V.D., Yegorenkov, Vladimir D.
Do fluids always push up objects immersed in them?
(2000) *Physics Education*, 35 (4), pp. 284 - 286

P., Kariotoglou, Petros, P., Koumaras, Panagiotis, D.K., Psillos, Dimitris K.
A constructivist approach for teaching fluid phenomena
(1993) *Physics Education*, 28 (3), art. no. 006, pp. 164 - 169

S.R., Hoon, Stephen R., B.K., Tanner, Brian K.
Magnetic fluids - Part 1
(1985) *Physics Education*, 20 (2), art. no. 307, pp. 61 - 65

S.R., Hoon, Stephen R., B.K., Tanner, Brian K.
Magnetic fluids - Part 2
(1985) *Physics Education*, 20 (3), art. no. 310, pp. 120 - 123

D., Bell, D.
Non-Newtonian fluids
(1979) *Physics Education*, 14 (7), art. no. 004, pp. 432 - 436

E.M., Wray, E. M.
Stokes' law revisited
(1977) *Physics Education*, 12 (5), art. no. 006, pp. 300 - 303

J.P., Gauthier, J. P., A., Deguin, André, R., Baldy, R.
Studying fluid properties near the critical point
(1977) *Physics Education*, 12 (4), art. no. 008, pp. 244 - 245

Donald Bedford, Raymond Lindsay
A misinterpretation of Bernoulli's theorem
(1977) *Physics Education*, 12 (5), art. no. 008, pp. 311 - 312

A.A., Collyer, Anthony A.
Time dependent fluids
(1974) *Physics Education*, 9 (1), art. no. 010, pp. 38 - 44

A.A., Collyer, Anthony A.

Viscoelastic fluids

(1974) *Physics Education*, 9 (5), art. no. 306, pp. 313 - 321

A.A., Collyer, Anthony A.

Time independent fluids

(1973) *Physics Education*, 8 (5), art. no. 009, pp. 333 - 338

T.C., Davenport, T. C.

Viscosity in the petroleum industry

(1968) *Physics Education*, 3 (3), art. no. 307, pp. 139 - 147

J., Lincoln, James

Virtual fluid labs and experiments

(2025) *Physics Teacher*, 63 (5), pp. 384 - 385

A., Gkourmpis, Athanasios

Understanding Elementary Fluid Dynamics with a Hydraulic Pipe, a Vacuum Cleaner, and a Smartphone-Based Manometer

(2025) *Physics Teacher*, 63 (5), pp. 355 - 358

F.X.D., Lee, Frank X.D.

A Fluid Dynamics Experiment for Introductory Physics

(2025) *Physics Teacher*, 63 (3), pp. 177 - 180

J., Lincoln, James

Fluid experiments with a U-tube or U-shaped density manometer

(2025) *Physics Teacher*, 63 (3), pp. 218 - 219

D.J., Horne, David James, L., Zheng, Lily, B., King, Bryce

A Simple and Cost-Effective Fluid Dynamics Apparatus to Engage Students in the Classroom and Laboratory

(2024) *Physics Teacher*, 62 (5), pp. 330 - 334

A., Yang, Ah-reum, Y., Chen, Yu, H., Kim, Hee-ra, Y., Ahn, Yujin, J., Kim, Jung-bog

The Relative Motion When Accelerating the Container of an Object Submerged in a Fluid

(2024) *Physics Teacher*, 62 (2), pp. 110 - 112

J.M., Cervenec, Jason M., G., Davis, Geddy, M.T., Gravina, Michael T., D., Hamilton, Daniel

A Tool for Exploring Our Fluid Earth

(2023) *Physics Teacher*, 61 (6), pp. 432 - 435

H., Williams, Hollis

Superhydrophobic Sand Repels Water

(2023) *Physics Teacher*, 61 (2), pp. 138 - 139

H.J., Ha, Hyejin Jin², T., Jang, Taehun, S., Sohn, Sangho

Measurement of hydraulic coefficients using a Mariotte bottle and a smartphone

(2022) *Physics Teacher*, 60 (7), pp. 612 - 613

- F., Behroozi, Feredoon
A Fresh Look at the Young-Laplace Equation and Its Many Applications in Hydrostatics
(2022) *Physics Teacher*, 60 (5), pp. 358 - 361
- A.L., Noxaic, Armand Le, K., Fadel, Kamil
How to Use the Archimedes Paradox for Educational Purposes
(2022) *Physics Teacher*, 60 (2), pp. 137 - 139
- B., Moser, Bradley
Teach Poiseuille First - A Call for a Paradigm Shift in Fluid Dynamics Education
(2021) *Physics Teacher*, 59 (7), pp. 552 - 555
- S., Shakerin, Said
Fluids Demonstrations III: Viscous Flow in Modified Thin Enclosures, Centrifugal Effect, Vortical Flow, and Turbulence
(2021) *Physics Teacher*, 59 (7), pp. 569 - 572
- R.C., Cross, Rodney C.
Visualizing Fluid Flow around a Baseball Using Water Instead of Air
(2021) *Physics Teacher*, 59 (5), pp. 310 - 312
- S., Kim, Sungki, S., Paik, Seounghey
Archimedes' Balance Approach Applied to Buoyant Force
(2021) *Physics Teacher*, 59 (2), pp. 125 - 127
- S., Ryu, Sangjin, H., Zhang, Haipeng, M.S., Peteranetz, Markeya S., T.A., Daher, Tareq A.
Fluid Mechanics Education Using Japanese Anime: Examples from "castle in the Sky" by Hayao Miyazaki
(2020) *Physics Teacher*, 58 (4), pp. 230 - 233
- G.M., Horsch, Georgios M.
A Simple Model for the Calculation of the Fluid Discharge from a Small Orifice
(2020) *Physics Teacher*, 58 (2), pp. 113 - 115
- B.J., Ackerson, Bruce J.
Cartesian Diver plus
(2020) *Physics Teacher*, 58 (2), pp. 84 - 85
- S., Shakerin, Said
Fluids Demonstrations II: Bubbles in Mondrian Painting, Eruption-Like Flow, Rotational Instability, and Wake Vortices
(2019) *Physics Teacher*, 57 (9), pp. 600 - 603
- L., Pavesi, L.
Investigating Torricelli's Law (and More) with a 19th-Century Bottle
(2019) *Physics Teacher*, 57 (2), pp. 106 - 108
- K.L., Goh, Ker Liang
Archimedes' Principle Using Energy Considerations
(2018) *Physics Teacher*, 56 (9), pp. 616 - 617

Q., Liang, Qingsheng, Y., Wei, Yajun
An Inexpensive Apparatus for Classroom Visualization of the Lift on Airplane Wings
(2018) *Physics Teacher*, 56 (9), pp. 612 - 613

S., Shakerin, Said
Fluids Demonstrations: Trailing Vortices, Plateau Border, Angle of Repose, and Flow Instability
(2018) *Physics Teacher*, 56 (4), pp. 248 - 252

J.C., Leme, José Costa, A., Oliveira, Agostinho
Pendulum underwater - An approach for quantifying viscosity
(2017) *Physics Teacher*, 55 (9), pp. 555 - 557

N.A., Goy, Nicolas Alexandre, Z., Denis, Zakari, M., Lavaud, Maxime, A., Grolleau, Adrien, N., Dufour, Nicolas, A., Deblais, Antoine, U., Delabre, Ulysse
Surface tension measurements with a smartphone
(2017) *Physics Teacher*, 55 (8), pp. 498 - 499

R.E., Vieyra, Rebecca Elizabeth, C., Vieyra, Chrystian, S., Macchia, Stefano
Kitchen physics: Lessons in fluid pressure and error analysis
(2017) *Physics Teacher*, 55 (2), pp. 87 - 90

R.C., Cross, Rodney C.
Vertical impact of a sphere falling into water
(2016) *Physics Teacher*, 54 (3), pp. 153 - 155

P.M., Binder, Philippe M., M.A., Magowan, M. A.
The buoyancy approach to U-tube problems
(2016) *Physics Teacher*, 54 (2), pp. 106 - 107

S.S., Bednarek, Stanisław S.
Annihilation and reanimation of a tornado in the improved tornado tube
(2016) *Physics Teacher*, 54 (2), pp. 103 - 105

G.R., Reich, Gary R.
Exploding water drops
(2016) *Physics Teacher*, 54 (1), pp. 9 - 13

V., Lopac, V.
Water jets from bottles, buckets, barrels, and vases with holes
(2015) *Physics Teacher*, 53 (3), pp. 169 - 173

T.W., Foley, Tyler W., M., Pegram, Matthew, Z., Jenkins, Zachary, B.C., Hester, Brooke C., J.L., Burris, Jennifer L.
Laser soap fountain
(2015) *Physics Teacher*, 53 (1), pp. 10 - 12

D., Sinclair, Dina, M., Vondracek, Mark
Standing waves and inquiry using water droplets

(2015) *Physics Teacher*, 53 (1), pp. 29 - 31

J.G., Agostinho Moreira, J. Gomes, A.M., Almeida, Abílio Monteiro, P.S., Carvalho, Paulo Simeão

Two experimental approaches of looking at buoyancy

(2013) *Physics Teacher*, 51 (2), pp. 96 - 97

D.R., Dounas-Frazer, Dimitri R., J.W., Lynn, Jacob W., A.M., Zaniewski, Anna M., N., Roth, N.

Learning about non-newtonian fluids in a student-driven classroom

(2013) *Physics Teacher*, 51 (1), pp. 32 - 34

P., Mohazzabi, Pirooz, M.C., James, Mark C.

A simple apparatus for demonstrating fluid forces and Newton's third law

(2012) *Physics Teacher*, 50 (9), pp. 537 - 539

D.V., Guerra, David Victor, K., Corley, Kevin, P., Giacometti, Paolo, E., Holland, Eric, M., Humphreys, Michael, M., Nicotera, Michael

An introduction to dimensionless parameters in the study of viscous fluid flows

(2011) *Physics Teacher*, 49 (3), pp. 175 - 179

Z., Chen, Zijun, E., Dan Dahlberg, Earl

Deformation of water by a magnetic field

(2011) *Physics Teacher*, 49 (3), pp. 144 - 146

A.C., Zable, Anthony C.

Experiments with helium-filled balloons

(2010) *Physics Teacher*, 48 (9), pp. 582 - 586

A., Tandon, Amit, J.C., Marshall, John C.

Einstein's tea leaves and pressure systems in the atmosphere

(2010) *Physics Teacher*, 48 (5), pp. 292 - 295

R.M., Heavers, Richard M., R.M., Dapp, Rachel M.

The Ekman layer and why tea leaves go to the center of the cup

(2010) *Physics Teacher*, 48 (2), pp. 96 - 100

M.F., Piva, Marcelo Fabián

Capillary rise in a wedge

(2009) *Physics Teacher*, 47 (8), pp. 528 - 530

M.J., Clouter, Maynard J.

Archimedes' principle: A classroom demonstration with a twist

(2006) *Physics Teacher*, 44 (1), pp. 46 - 47

D.V., Guerra, David Victor, A., Plaisted, Aaron, M., Smith, Michael

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A bernoulli's law lab in a bottle

(2005) *Physics Teacher*, 43 (7), pp. 456 - 459

L.M., Gratton, Luigi Maria, S., Oss, Stefano
Soap, colors, holes, and much more
(2005) *Physics Teacher*, 43 (6), pp. 338 - 339

C.F., Bohren, Craig F.
The freezing of streams and ponds: A simple-but uncomfortable-experiment
(2004) *Physics Teacher*, 42 (9), pp. 522 - 525

C.E., Mungan, Carl E.
Reprise of a "dense and tense story"
(2004) *Physics Teacher*, 42 (5), pp. 292 - 294

E.H., Graf, Erlend H.
Just what did archimedes say about buoyancy?
(2004) *Physics Teacher*, 42 (5), pp. 296 - 299

C.A., Gaffney, Chris A.
The hydrostatics of trapped bubbles in fluids
(2000) *Physics Teacher*, 38 (8), pp. 458 - 460

J., O'Connell, James
Shapes of bubbles and drops in motion
(2000) *Physics Teacher*, 38 (4), pp. 232 - 233