# Rod Cross

List of Publications by Year
in descending order



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|---|---|---|---|
| 183 papers | 1,882 citations | 304743 22 h-index | 330143 37 g-index |
| 184 all docs | 184 docs citations | 184 times ranked | 923 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Two-dimensional collisions of disks and spheres. European Journal of Physics, 2022, 43, 015007. | 0.6 | 3 |
| 2 | Collision of two coins on a horizontal surface. Physics Education, 2022, 57, 015009. | 0.5 | 0 |
| 3 | An experiment with two bottle tops. Physics Education, 2022, 57, 013002. | 0.5 | 0 |
| 4 | Oblique impact of ice hockey and plastic pucks with a rigid surface. European Journal of Physics, 2022, 43, 025003. | 0.6 | 2 |
| 5 | Falling faster than g, exponentially. Physics Education, 2022, 57, 035001. | 0.5 | 0 |
| 6 | Billiard ball vs rubber ball collisions. Physics Education, 2022, 57, 033001. | 0.5 | 1 |
| 7 | Reply to Comment on â€˜An electrostatics paradoxâ€™. Physics Education, 2022, 57, 038002. | 0.5 | 0 |
| 8 | Actual vs textbook transformers. Physics Education, 2022, 57, 023003. | 0.5 | 0 |
| 9 | A Faradayâ€™s law paradox. Physics Education, 2022, 57, 013003. | 0.5 | 0 |
| 10 | An electrostatics paradox. Physics Education, 2022, 57, 023001. | 0.5 | 2 |
| 11 | Curious behaviour of spinning coffee cups and other spinning objects. Physics Education, 2022, 57, 015022. | 0.5 | 0 |
| 12 | â€˜Levitationâ€™ of a falling pencil. Physics Education, 2022, 57, 043002. | 0.5 | 1 |
| 13 | Motion of a plucked string or spring. Physics Education, 2022, 57, 043005. | 0.5 | 0 |
| 14 | Precession of a ball rolling in a circular path. Physics Education, 2022, 57, 045036. | 0.5 | 0 |
| 15 | A single collision between three objects cannot be described using only two conservation equations. Physics Education, 2022, 57, 055004. | 0.5 | 0 |
| 16 | Oblique angle collisions of two pendulum balls. American Journal of Physics, 2022, 90, 506-512. | 0.7 | 2 |
| 17 | Trajectory of a ball on an inclined plane. Physics Education, 2022, 57, 055007. | 0.5 | 1 |
| 18 | Trajectory of an object sliding across an incline. Physics Education, 2022, 57, 055013. | 0.5 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Bouncing up and down an incline. Physics Education, 2022, 57, 055021. | 0.5 | 0 |
| 20 | Pendulum motion on an inclined plane. Physics Education, 2022, 57, 055012. | 0.5 | 1 |
| 21 | Vertical bounce of a spinning ball. Physics Education, 2021, 56, 023002. | 0.5 | 2 |
| 22 | Rotating ring on a vertical rod. Physics Education, 2021, 56, 023003. | 0.5 | 3 |
| 23 | Acceleration of a ball down an inclined plane. Physics Education, 2021, 56, 035017. | 0.5 | 4 |
| 24 | Impact of a double sphere dropped vertically onto a horizontal surface. European Journal of Physics, 2021, 42, 025014. | 0.6 | 1 |
| 25 | Effect of friction on a hula hoop. Physics Education, 2021, 56, 033001. | 0.5 | 2 |
| 26 | A conical pendulum model of a rotating chain. European Journal of Physics, 2021, 42, 035007. | 0.6 | 1 |
| 27 | Oblique bounce of a double sphere on a horizontal surface. European Journal of Physics, 2021, 42, 035010. | 0.6 | 1 |
| 28 | Transition from sliding to rolling in billiards and golf. Physics Education, 2021, 56, 045003. | 0.5 | 1 |
| 29 | Oscillation frequencies of a double pendulum. Physics Education, 2021, 56, 043003. | 0.5 | 0 |
| 30 | Simulating the flight of an oval football. Physics Education, 2021, 56, 043002. | 0.5 | 0 |
| 31 | How to levitate an egg. Physics Education, 2021, 56, 043010. | 0.5 | 4 |
| 32 | Bouncing ball impacts. American Journal of Physics, 2021, 89, 452-452. | 0.7 | 0 |
| 33 | Bounce of a biassed ball. Physics Education, 2021, 56, 055001. | 0.5 | 1 |
| 34 | A bead on a rotating rod experiment. Physics Education, 2021, 56, 055012. | 0.5 | 1 |
| 35 | Observations of a driven pendulum at low amplitudes. European Journal of Physics, 2021, 42, 055001. | 0.6 | 1 |
| 36 | Physics of a hopping hoop. Physics Education, 2021, 56, 053005. | 0.5 | 1 |

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|---|---|---|---|
| 37 | A falling rod on wheels. Physics Education, 2021, 56, 055024. | 0.5 | 0 |
| 38 | The fall of an inclined rod. European Journal of Physics, 2021, 42, 055005. | 0.6 | 3 |
| 39 | Coefficients of restitution for a collision. Physics Education, 2021, 56, 065017. | 0.5 | 0 |
| 40 | Rolling motion of a ball on a turntable. Physics Education, 2021, 56, 065003. | 0.5 | 1 |
| 41 | Collision of a ball with a wood block. Physics Education, 2021, 56, 065021. | 0.5 | 0 |
| 42 | Energy loss in cue-ball collisions. European Journal of Physics, 2021, 42, 065003. | 0.6 | 0 |
| 43 | Experimental study of the gear effect. European Journal of Physics, 2021, 42, 065013. | 0.6 | 0 |
| 44 | Experiments with colliding rods. European Journal of Physics, 2021, 42, 065009. | 0.6 | 0 |
| 45 | Oblique impact of a hard ball on a soft surface. European Journal of Physics, 2021, 42, 065006. | 0.6 | 2 |
| 46 | A wall of death experiment. Physics Education, 2021, 56, 023006. | 0.5 | 0 |
| 47 | The effect of very small ball gaps in Newtonâ€™s cradle. European Journal of Physics, 2021, 42, 025004. | 0.6 | 4 |
| 48 | Physics of a hula hoop. Physics Education, 2021, 56, 025015. | 0.5 | 2 |
| 49 | Coefficient of restitution for an obliquely bouncing ball. Physics Education, 2021, 56, 015004. | 0.5 | 4 |
| 50 | Vertical bounce of a plastic egg. Physics Education, 2021, 56, 025005. | 0.5 | 1 |
| 51 | Understanding Newtonâ€™s cradle. II: exploring a real cradle. Physics Education, 2021, 56, 025002. | 0.5 | 3 |
| 52 | Understanding Newtonâ€™s cradle. I: modelling the ideal cradle. Physics Education, 2021, 56, 025001. | 0.5 | 7 |
| 53 | Pendulum motion of a biased cylindrical tube. European Journal of Physics, 2020, 41, 015006. | 0.6 | 5 |
| 54 | Rolling resistance of hard balls on soft surfaces. European Journal of Physics, 2020, 41, 025005. | 0.6 | 2 |

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|---|---|---|---|
| 55 | Validation of ball spin estimates in tennis from multi-camera tracking data. Journal of Sports Sciences, 2020, 38, 296-303. | 2.0 | 7 |
| 56 | Measuring the topspin and sidespin components of a rolling ball. Physics Education, 2020, 55, 015022. | 0.5 | 0 |
| 57 | A hemispherical tippe top. European Journal of Physics, 2020, 41, 025001. | 0.6 | 1 |
| 58 | Newtonâ€™s cradle with an end stop. European Journal of Physics, 2020, 41, 065004. | 0.6 | 1 |
| 59 | Two balls stuck by friction on an incline, and a four ball pyramid. Physics Education, 2020, 55, 055013. | 0.5 | 2 |
| 60 | Bouncing along a horizontal surface. Physics Education, 2020, 55, 043001. | 0.5 | 1 |
| 61 | Bouncing a ball at rest on a surface. Physics Education, 2020, 55, 035021. | 0.5 | 1 |
| 62 | Measurements of the drag force on balls in water. European Journal of Physics, 2020, 41, 055003. | 0.6 | 5 |
| 63 | Impulse excitation of mechanical resonators: massâ€“spring systems and fishing rods. European Journal of Physics, 2020, 41, 065008. | 0.6 | 0 |
| 64 | Head-on car collisions. Physics Education, 2020, 55, 033002. | 0.5 | 0 |
| 65 | The rolling friction formula. Physics Education, 2020, 55, 033003. | 0.5 | 2 |
| 66 | Measuring coefficients of restitution with a piezo disk. Physics Education, 2020, 55, 035008. | 0.5 | 3 |
| 67 | Impact of a ball with a rigid rod. European Journal of Physics, 2020, 41, 035001. | 0.6 | 0 |
| 68 | Calculations of groundstroke trajectories in tennis. Sports Engineering, 2020, 23, 1. | 1.1 | 13 |
| 69 | Impact of a ball with a flexible beam. European Journal of Physics, 2020, 41, 045003. | 0.6 | 0 |
| 70 | An inclined beam at rest on a ball or cylinder. Physics Education, 2020, 55, 055014. | 0.5 | 0 |
| 71 | Impact force between two colliding billiard balls. Physics Education, 2020, 55, 065002. | 0.5 | 3 |
| 72 | A two-dimensional version of Newtonâ€™s cradle. Physics Education, 2020, 55, 063001. | 0.5 | 0 |

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|---|---|---|---|
| 73 | A simple experiment to model speed bumps and humps. European Journal of Physics, 2020, 41, 065010. | 0.6 | 0 |
| 74 | The impact of a hammer and a nail. Physics Education, 2019, 54, 055022. | 0.5 | 0 |
| 75 | A spinning top for physics experiments. Physics Education, 2019, 54, 055028. | 0.5 | 2 |
| 76 | Spin experiments with a biased ball. European Journal of Physics, 2019, 40, 055003. | 0.6 | 2 |
| 77 | Collision of a ball with the edge of a step. European Journal of Physics, 2019, 40, 065007. | 0.6 | 0 |
| 78 | Correcting camera perspective errors. Physics Education, 2019, 54, 063005. | 0.5 | 0 |
| 79 | Energy losses in a rolling ball. European Journal of Physics, 2019, 40, 035003. | 0.6 | 4 |
| 80 | Topspin generation in tennis. Sports Engineering, 2019, 22, 1. | 1.1 | 2 |
| 81 | The abrupt ending of a spinning disk. European Journal of Physics, 2019, 40, 065002. | 0.6 | 0 |
| 82 | Oblique impact of a steel ball. Powder Technology, 2019, 351, 282-290. | 4.2 | 13 |
| 83 | Why some balls spin faster than others when they bounce. Physics Education, 2019, 54, 035009. | 0.5 | 0 |
| 84 | Julius Sumner Miller. Physics Education, 2019, 54, 026501. | 0.5 | 0 |
| 85 | Elastic deformation of a bouncing ball. European Journal of Physics, 2019, 40, 035002. | 0.6 | 2 |
| 86 | Effect of topspin on the apparent speed of a tennis court. Sports Engineering, 2019, 22, 1. | 1.1 | 1 |
| 87 | Rolling over an obstacle. European Journal of Physics, 2019, 40, 015005. | 0.6 | 0 |
| 88 | Bounce of a perfectly elastic ball. Physics Education, 2019, 54, 013001. | 0.5 | 0 |
| 89 | Oblique impact of a spinning rubber ball. European Journal of Physics, 2019, 40, 025002. | 0.6 | 2 |
| 90 | Effects of rolling friction on a spinning coin or disk. European Journal of Physics, 2018, 39, 035005. | 0.6 | 3 |

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|---|---|---|---|
| 91 | Comment on â€˜An impacting linear three body systemâ€™. European Journal of Physics, 2018, 39, 038001. | 0.6 | 0 |
| 92 | Dynamics of a spherical tippe top. European Journal of Physics, 2018, 39, 035001. | 0.6 | 3 |
| 93 | Further remarks on â€˜A comparative study of two types of ball-on-ball collisionâ€™ 2017 Phys. Educ. 52 045013. Physics Education, 2018, 53, 026501. | 0.5 | 0 |
| 94 | Throwing accuracy. Physics Education, 2018, 53, 035021. | 0.5 | 2 |
| 95 | Multiple collisions of two steel balls in a Newtonâ€™s cradle. European Journal of Physics, 2018, 39, 025001. | 0.6 | 10 |
| 96 | Remarks on â€˜A comparative study of two types of ball-on-ball collisionâ€™. Physics Education, 2018, 53, 016501. | 0.5 | 0 |
| 97 | Why does a spinning egg rise?. European Journal of Physics, 2018, 39, 025002. | 0.6 | 10 |
| 98 | Static friction on a ball rolling down an incline. Physics Education, 2018, 53, 065014. | 0.5 | 3 |
| 99 | Launch speed, angle and spin in golf. European Journal of Physics, 2018, 39, 065003. | 0.6 | 4 |
| 100 | A common problem with video cameras. Physics Education, 2018, 53, 055014. | 0.5 | 1 |
| 101 | Backward bounce of a spinning ball. European Journal of Physics, 2018, 39, 045007. | 0.6 | 3 |
| 102 | The Chappaquiddick Incident. Physics Teacher, 2016, 54, 520-522. | 0.3 | 1 |
| 103 | Motion of a Ball on a Moving Surface. Physics Teacher, 2016, 54, 76-79. | 0.3 | 2 |
| 104 | Coulomb's law for rolling friction. American Journal of Physics, 2016, 84, 221-230. | 0.7 | 43 |
| 105 | Surprising Behavior of Spinning Tops and Eggs on an Inclined Plane. Physics Teacher, 2016, 54, 28-30. | 0.3 | 2 |
| 106 | Vertical Impact of a Sphere Falling into Water. Physics Teacher, 2016, 54, 153-155. | 0.3 | 7 |
| 107 | Why low bounce balls exhibit high rolling resistance. Physics Education, 2015, 50, 717-721. | 0.5 | 4 |
| 108 | Behaviour of a bouncing ball. Physics Education, 2015, 50, 335-341. | 0.5 | 15 |

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|---|---|---|---|
| 109 | Precession of a Spinning Ball Rolling Down an Inclined Plane. Physics Teacher, 2015, 53, 217-219. | 0.3 | 4 |
| 110 | Why Chalk Breaks into Three Pieces When Dropped. Physics Teacher, 2015, 53, 13-14. | 0.3 | 1 |
| 111 | Impact behavior of a superball. American Journal of Physics, 2015, 83, 238-248. | 0.7 | 33 |
| 112 | Physics of swinging a striking implement. Physics Education, 2015, 50, 232-236. | 0.5 | 1 |
| 113 | Experimenting with a spinning disk. Physics Education, 2015, 50, 197-202. | 0.5 | 5 |
| 114 | Factors affecting the vibration of tennis racquets. Sports Engineering, 2015, 18, 135-147. | 1.1 | 8 |
| 115 | Oblique Bounce of a Rubber Ball. Experimental Mechanics, 2014, 54, 1523-1536. | 2.0 | 14 |
| 116 | Comment on â€œAn accurate determination of the acceleration of gravity for lecture hall demonstrationâ€•[Am. J. Phys. 55, 324â€“330 (1987)]. American Journal of Physics, 2014, 82, 803-804. | 0.7 | 2 |
| 117 | Measurements of drag and lift on tennis balls in flight. Sports Engineering, 2014, 17, 89-96. | 1.1 | 24 |
| 118 | Impact of sports balls with striking implements. Sports Engineering, 2014, 17, 3-22. | 1.1 | 47 |
| 119 | Measuring the Drag Force on a Falling Ball. Physics Teacher, 2014, 52, 169-170. | 0.3 | 20 |
| 120 | Misinterpretation of expert evidence in Wood v R. Australian Journal of Forensic Sciences, 2014, 46, 368-382. | 1.2 | 0 |
| 121 | Impact behavior of hollow balls. American Journal of Physics, 2014, 82, 189-195. | 0.7 | 25 |
| 122 | The footprint of a tennis ball. Sports Engineering, 2014, 17, 239-247. | 1.1 | 10 |
| 123 | Laithwaite's Heavy Spinning Disk Demonstration. Physics Teacher, 2014, 52, 349-349. | 0.3 | 4 |
| 124 | Spinning eggs and ballerinas. Physics Education, 2013, 48, 51-56. | 0.5 | 7 |
| 125 | The rise and fall of spinning tops. American Journal of Physics, 2013, 81, 280-289. | 0.7 | 24 |
| 126 | Effect of configuration on the biomechanical performance of three suture materials used in combination with a metallic bone anchor. American Journal of Veterinary Research, 2013, 74, 1487-1492. | 0.6 | 1 |

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|---|---|---|---|
| 127 | Spherical Tippe Tops. Physics Teacher, 2013, 51, 144-145. | 0.3 | 2 |
| 128 | Elastic Properties of Plasticine, Silly Putty, and Tennis Strings. Physics Teacher, 2012, 50, 527-529. | 0.3 | 12 |
| 129 | Rolling Motion of a Ball Spinning About a Near-Vertical Axis. Physics Teacher, 2012, 50, 25-27. | 0.3 | 8 |
| 130 | Edme Mariotte and Newton's Cradle. Physics Teacher, 2012, 50, 206-207. | 0.3 | 5 |
| 131 | Aerodynamics in the classroom and at the ball park. American Journal of Physics, 2012, 80, 289-297. | 0.7 | 14 |
| 132 | Modeling a falling slinky. American Journal of Physics, 2012, 80, 1051-1060. | 0.7 | 18 |
| 133 | Measuring the Effects of Lift and Drag on Projectile Motion. Physics Teacher, 2012, 50, 80-82. | 0.3 | 3 |
| 134 | Elastic and viscous properties of Silly Putty. American Journal of Physics, 2012, 80, 870-875. | 0.7 | 69 |
| 135 | The kick serve in tennis. Sports Technology, 2011, 4, 19-28. | 0.4 | 11 |
| 136 | A double pendulum model of tennis strokes. American Journal of Physics, 2011, 79, 470-476. | 0.7 | 14 |
| 137 | Launch of a Vehicle from a Ramp. Physics Teacher, 2011, 49, 410-411. | 0.3 | 5 |
| 138 | Impact forces and torques transmitted to the hand by tennis racquets. Sports Technology, 2010, 3, 102-111. | 0.4 | 4 |
| 139 | Bounce of an oval shaped football. Sports Technology, 2010, 3, 168-180. | 0.4 | 15 |
| 140 | The polar moment of inertia of striking implements. Sports Technology, 2010, 3, 215-219. | 0.4 | 6 |
| 141 | Measurement of the speed and bounce of tennis courts. Sports Technology, 2010, 3, 112-120. | 0.4 | 6 |
| 142 | Enhancing the Bounce of a Ball. Physics Teacher, 2010, 48, 450-452. | 0.3 | 13 |
| 143 | Impact of a ball on a surface with tangential compliance. American Journal of Physics, 2010, 78, 716-720. | 0.7 | 7 |
| 144 | Mechanics of swinging a bat. American Journal of Physics, 2009, 77, 36-43. | 0.7 | 24 |

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|---|---|---|---|
| 145 | Forensic Physics 101: Falls from a height. American Journal of Physics, 2008, 76, 833-837. | 0.7 | 7 |
| 146 | Cue and ball deflection (or â€œsquirtâ€) in billiards. American Journal of Physics, 2008, 76, 205-212. | 0.7 | 12 |
| 147 | Differences between bouncing balls, springs, and rods. American Journal of Physics, 2008, 76, 908-915. | 0.7 | 19 |
| 148 | Experimental study of the gear effect in ball collisions. American Journal of Physics, 2007, 75, 658-664. | 0.7 | 15 |
| 149 | Aerodynamics of a Party Balloon. Physics Teacher, 2007, 45, 334-336. | 0.3 | 9 |
| 150 | Vertical bounce of two vertically aligned balls. American Journal of Physics, 2007, 75, 1009-1016. | 0.7 | 15 |
| 151 | Effects of swing-weight on swing speed and racket power. Journal of Sports Sciences, 2006, 24, 23-30. | 2.0 | 59 |
| 152 | Scattering of a baseball by a bat. American Journal of Physics, 2006, 74, 896-904. | 0.7 | 32 |
| 153 | The fall and bounce of pencils and other elongated objects. American Journal of Physics, 2006, 74, 26-30. | 0.7 | 31 |
| 154 | Fatal Falls from a Height: Two Case Studies. Journal of Forensic Sciences, 2006, 51, 93-99. | 1.6 | 19 |
| 155 | A double pendulum swing experiment: In search of a better bat. American Journal of Physics, 2005, 73, 330-339. | 0.7 | 19 |
| 156 | String tension effects on tennis ball rebound speed and accuracy during playing conditions. Journal of Sports Sciences, 2005, 23, 765-771. | 2.0 | 20 |
| 157 | Bounce of a spinning ball near normal incidence. American Journal of Physics, 2005, 73, 914-920. | 0.7 | 37 |
| 158 | Increase in friction force with sliding speed. American Journal of Physics, 2005, 73, 812-816. | 0.7 | 17 |
| 159 | Physics of overarm throwing. American Journal of Physics, 2004, 72, 305-312. | 0.7 | 33 |
| 160 | Center of percussion of hand-held implements. American Journal of Physics, 2004, 72, 622-630. | 0.7 | 26 |
| 161 | Oblique impact of a tennis ball on the strings of a tennis racket. Sports Engineering, 2003, 6, 235-254. | 1.1 | 18 |
| 162 | Measurements of the horizontal and vertical speeds of tennis courts. Sports Engineering, 2003, 6, 95-111. | 1.1 | 19 |

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|---|---|---|---|
| 163 | Player sensitivity to changes in string tension in a tennis racket. Journal of Science and Medicine in Sport, 2003, 6, 120-131. | 1.3 | 11 |
| 164 | Grip-slip behavior of a bouncing ball. American Journal of Physics, 2002, 70, 1093-1102. | 0.7 | 139 |
| 165 | Measurements of the horizontal coefficient of restitution for a superball and a tennis ball. American Journal of Physics, 2002, 70, 482-489. | 0.7 | 98 |
| 166 | The dual function of sand on a clay tennis court. Physics Teacher, 2001, 39, 330-331. | 0.3 | 3 |
| 167 | Customising a tennis racket by adding weights. Sports Engineering, 2001, 4, 1. | 1.1 | 39 |
| 168 | Response to â€œComment on â€˜The sweet spot of a baseball batâ€™â€Šâ€•[Am. J. Phys. 69 (2), 229â€“230 (2001)]. American Journal of Physics, 2001, 69, 231-232. | 0.7 | 7 |
| 169 | Laboratory testing of tennis strings. Sports Engineering, 2000, 3, 219-230. | 1.1 | 11 |
| 170 | Tension loss along a string. American Journal of Physics, 2000, 68, 1152-1153. | 0.7 | 2 |
| 171 | Standing, walking, running, and jumping on a force plate. American Journal of Physics, 1999, 67, 304-309. | 0.7 | 97 |
| 172 | Role of the centrifugal force in vehicle roll. American Journal of Physics, 1999, 67, 447-448. | 0.7 | 5 |
| 173 | Impact of a ball with a bat or racket. American Journal of Physics, 1999, 67, 692-702. | 0.7 | 48 |
| 174 | The bounce of a ball. American Journal of Physics, 1999, 67, 222-227. | 0.7 | 181 |
| 175 | The trajectory of a ball in lawn bowls. American Journal of Physics, 1998, 66, 735-738. | 0.7 | 13 |
| 176 | The sweet spot of a baseball bat. American Journal of Physics, 1998, 66, 772-779. | 0.7 | 63 |
| 177 | The dead spot of a tennis racket. American Journal of Physics, 1997, 65, 754-764. | 0.7 | 25 |
| 178 | Current transformers. American Journal of Physics, 1986, 54, 1110-1113. | 0.7 | 7 |
| 179 | Compensated RC integrators. American Journal of Physics, 1981, 49, 479-480. | 0.7 | 5 |
| 180 | Interpreting positive Hall voltages in terms of electron rather than hole motion. American Journal of Physics, 1978, 46, 771-772. | 0.7 | 1 |

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|---|---|---|---|
| 181 | Dynamics of a rolling egg. European Journal of Physics, 0, , . | 0.6 | 3 |
| 182 | Observations of a falling ladder. European Journal of Physics, 0, , . | 0.6 | 1 |
| 183 | Four different ways that toast can fall off a table. European Journal of Physics, 0, , . | 0.6 | 0 |