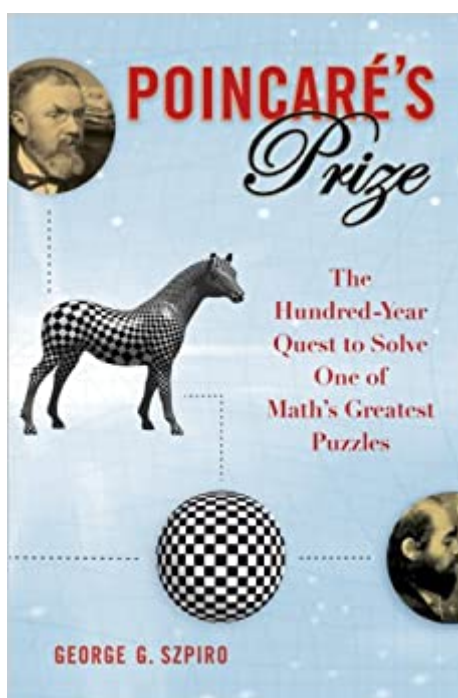The book was found

Poincare's Prize: The Hundred-Year Quest To Solve One Of Math's Greatest Puzzles

Synopsis

With a reclusive and eccentric hero, dramatic turns, and a million-dollar payoff, PoincarÃƒÂ©’s Prize is the stuff of great fiction. Amazingly, the story unveiled in it is true. In the world of math, the PoincarÃƒÂ© Conjecture was a holy grail. Decade after decade the theorem that informs how we understand the shape of the universe defied every effort to prove it. Now, after more than a century, an eccentric Russian recluse has found the solution to one of the seven greatest math problems of our time, earning the right to claim the first one-million-dollar Millennium math prize. George Szpiro begins his masterfully told story in 1904 when Frenchman Henri PoincarÃƒÂ© formulated a conjecture about a seemingly simple problem. Imagine an ant crawling around on a large surface. How would it know whether the surface is a flat plane, a round sphere, or a bagel- shaped object? The ant would need to lift off into space to observe the object. How could you prove the shape was spherical without actually seeing it? Simply, this is what PoincarÃƒÂ© sought to solve. In fact, PoincarÃƒÂ© thought he had solved it back at the turn of the twentieth century, but soon realized his mistake. After four more years’ work, he gave up. Across the generations from China to Texas, great minds stalked the solution in the wilds of higher dimensions. Among them was Grigory Perelman, a mysterious Russian who seems to have stepped out of a Dostoyevsky novel. Living in near poverty with his mother, he has refused all prizes and academic appointments, and rarely talks to anyone, including fellow mathematicians. It seemed he had lost the race in 2002, when the conjecture was widely but, again, falsely reported as solved. A year later, Perelman dropped three papers onto the Internet that not only proved the PoincarÃƒÂ© Conjecture but enlightened the universe of higher dimensions, solving an array of even more mind-bending math with implications that will take an age to unravel. After years of review, his proof has just won him a Fields Medal, the "Nobel of math," awarded only once every four years. With no interest in fame, he refused to attend the ceremony, did not accept the medal, and stayed home to watch television. Perelman is a St. Petersburg hero, devoted to an ascetic life of the mind. The story of the enigma in the shape of space that he cracked is part history, part math, and a fascinating tale of the most abstract kind of creativity.

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Customer Reviews

Starred Review Imagine Oedipus solving the riddle of the Sphinx only then to refuse the crown offered as the reward for his triumph. A modern version of such an improbable event forms the spine of Szpiro's remarkable narrative. Himself an accomplished mathematician, Szpiro recounts the story of how a geometrical puzzle worthy of the most voracious sphinx finally yielded to an eccentric Russian genius who has since refused the honors and million-dollar prize proffered by an astonished world. The mathematical puzzle, readers learn, originated with the French polymath Henri PoincarÃƒÂ©, whose revolutionary topology generated a tantalizing conjecture about how multidimensional bodies might all be transformed into spheres. Only specialists can fully understand this famous conjecture, but Szpiro translates its essential features into remarkably accessible analogiesÃ¢â¬â•rubber bands wrapped around a bagel, for instance. Readers learn much not only about the conjecture but also about the many scholars consumed byÃ Â passion to proveÃ¢â¬â•or disproveÃ¢â¬â•it. Readers meet, among others, the radical but gentlemanly "Papa" Papakyriakopoulos and the playboy windsurfer Richard Hamilton. However, Szpiro accords pride of place to Grigori Perelman, the reclusive titan who finally pierced the mysteryÃ¢â¬â•and then spurned the awards.Ã Â Never has mathematics provided more fascinating human drama! Christensen, Bryce Copyright Ã Â© American Library Association. All rights reserved

“[Szpiro] turns the abstract mathematics of spheres into a lucid, lovely romantic odyssey.” —Sylvia Nasar, author of A Beautiful Mind “A wonderful history of a great breakthrough.” —Bud Mishra, professor, Courant Institute of Mathematical Sciences, New York University --This text refers to an out of print or unavailable edition of this title.

The book is well detailed. It describes very well all the mathematicians having been struggling with the enormous task of proving or disproving PointcarÃƒÂ©'s conjecture. When reading, scores of

these people, maybe more than a hundred of them, are coming along. So, Szpiro didn't certainly take the easy road. But, after reading his book, I still remain with an unanswered question. That is:If there is one topic where pictures would be really, really, useful and in fact necessary to describe and explain all these tough geometrical manipulations, it would be the topic of Pointcarãƒâ©'s conjecture. Well, in this book there are none. Pictures could have made this book 300 percent more interesting. But none of them. Readers have to figure out themselves how a particular shape looks like when being moved from 2 to 3 dimensions, etc. For example, just take a look on Wikipedia, to see some of these wonderful shapes. For me, geometry deals with pictures. Compared to Szpiro, I don't want to call myself a writer, but I know one thing for sure. The book I once wrote on the Riemann hypothesis would have been unreadable without scores of pictures.In Szpiro's favor I have to say the following. I got the idea he intended to add the required pictures but for some reason they never made it to the book. Probably without him knowing that. For instance, on page 169, he writes: "Take for example, the one-dimensional figure 0 as printed on this page." Well, that page, and in fact, the entire book doesn't contain any picture whatsoever. Who made the error I haven't a clue. Could even have been someone at the publisher or at the printer.I could only suggest to Szpiro, this is a really good and interesting book. Please, issue a new revision and add the pictures every reader really wants. If so, I would be the first buyer. You did an excellent job, but you know what I'm missing. Thanks in advance.

A delightful story of one of the major problems in mathematics and the numerous people, many Field medalists, that have intervened to solve it. Even if you are not an expert in topology you will get a feeling of the path to the proof via Thurston's geometrization conjecture and Hamilton's Ricci flow to the surgery of Perelman.The general educated reader will enjoy the stories of Smale in Copacabana and Hamilton's string of girlfriends which contrasts with the ascetism of Perelman and the political manouvering of Yau. In short, mathematics is a human endeavour and its practitioners are mortals which have similar passions, defects and excentricities as the rest of us, only they are extremely brilliant and passionate about the Queen of Sciences.Compared with a similar book by O'Shea this goes more directly to the point, whereas O'Shea introduces Poincarãƒâ© only in page 111 after a very interesting but long detour from Babylon to Klein. Both books are worth reading and complement each other

How can a book in which very esoteric mathematical subjects are discussed, but not shown, be a page turner?When it tells the story of the real people that chased this Holy Grail for many years. Let

those that are gifted in math argue about how many angels can dance on the head of a manifold, but this book was written for those of us that have trouble with dimensions that need a second hand to be counted. The author took a vow to not include equations and I suppose a corollary was to not include diagrams but nevermind. I think he did a masterful job of not only telling this story, but revealing something about the rough and tumble world of mathematic academia.Challenging at times but addictive to read.

A soap opera of Shakespearean proportions about clashing egos on the battlefields of pure mathematics. The author is forgiven for claiming at page 71 that this reviewer worked with knots "on his living room floor' -- a myth also found in at least four other books.

In reading _Poincare's_Prize_ I find that there is a dearth of equations; actually that's too kind. When a math book, even one for the general public, simply neglects any equations, well, that's a bit too much. (And, yes, I know Stephen Hawking writes with few equations but even so, that doesn't make it a good idea.) Plus, the book has no diagrams to illustrate ideas. This is a book on topology, on shapes and space, and there couldn't be a figure to show the reader what the author is trying to describe? That's senseless.On a positive note, the writing is clear and direct and the author does his best to describe the ideas. It's a good showing but it would be a better showing, and be better for *all* readers to have equations and especially figures.I purchased the book because I wanted to understand Poincare's conjecture, its place in math, and possibly understand the solution. I would have expected it to be difficult, maybe impossible, for me to understand in any complete sense the solution; after all, Perelman's papers are on the ArXiv website and I don't understand them. (Still, few professional mathematicians can really understand them.) But, the problem explanation and some of the thoughts that surround it, should have been better explained and illustrated.In that way, the book is disappointing. But, in another way, the book is a good read---the writing, as I noted, is well-done. So, even with my disappointment, I am happy with the book in a loose sense and with that, I would recommend it to others if they accept the caveat on the book's mathematical depth.

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