

Armen Panossian

[John Friedlander](#) (born October 4, 1941)

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John Friedlander is a Canadian mathematician who specializes in analytic number theory. He received his PhD from Pennsylvania State University in 1972 under the direction of Sarvadaman D S Chowla with a dissertation entitled “The Distribution of Power Residues in Algebraic Number Fields”. He is a mathematical descendant of John Edensor Littlewood (who had early in his academic career tried to prove the Riemann hypothesis and was one of the individuals who first identified the genius of Ramanujan and sponsored him to study at Cambridge) and Ernest William Barnes (who was Ramanujan’s tutor and a clergyman). Friedlander used several results first stated by Ramanujan in his work in order to understand the distribution of prime numbers. Friedlander has done much of his most pioneering work in collaboration with Rutgers University’s very own Professor Henryk Iwaniec such as their famous proof that there exist infinitely many primes of the form  $a^2+b^4$ . Both mathematicians used Bombieri’s novel “sieve” technique in analytic number theory to obtain this result (they had begun their work on this in 1978). It is clear that Dr. Friedlander and Dr. Iwaniec continue to have a good collaborative relationship since their most recent paper together was published just this year. Friedlander is extremely well-cited at over 1800 citations and has 8 mathematical descendants including 2 mathematical “grandchildren”. He is currently Professor of Mathematics at the University of Toronto, his alma mater.