

Hexin Bi

History of Psychology

Professor Doron Zeilberger

Essay of Michael Filaseta

[85,503,1981, 2021,2,0,16]

Homepage:https://sc.edu/study/colleges_schools/artsandsciences/mathematics/our_people/directory/filaseta_michael.php

Michael Filaseta is a mathematician in the 21st century. He completed his Bachelor's degree program at the University of Arizona in 1980. After four years, he completed his Ph.D. program at the University of Illinois at Urbana-Champaign. He starts his teaching life as an Assistant Professor at the University of South Carolina. He became an Associate Professor in 1989, and an Assistant Chair in 2019. He is also a member of the American Mathematical Society and Mathematical Association. Overall, he had 85 articles published from 1981 to 2021. In his whole research life. He is interested in Number theory including analytic, classical algebraic, combinatorial, computational, elementary, and transcendence topics. Overall published 85 articles in combinatorics, number theory, and series, etc. His most recent work has focused largely on polynomials over the rationals and, in particular, on their factorization. His latest works are Consecutive primes which are widely digitally delicate, and Primes that become composite after changing an arbitrary digit. He showed that a positive proportion of the primes have the property that if any one of its digits in base 10, including its infinitely many leading 0 digits, is replaced by a different digit, then the resulting number is composite.

As a participant in the Ramanujan Centennial Conference in 1987. Some of Michael's work is also affected by the greatest mathematician Srinivasa Ramanujan, which is known for Ramanujan prime and Ramanujan constant. He is the one who first proved that for large x , the number of positive integers below x that are the sum of two square numbers behaves asymptotically as $\frac{x}{\sqrt{\log(X)}}$. In 2009, Filaseta published the article "Primes that become composite after changing an arbitrary digit. He thoroughly discussed the work of how Ramanujan got the Diophantine equation. All the theories Ramanujan proved or explained give the mathematician a bridge leading to a deeper area in the number theory of mathematics. With the proof and generalization of theory and equation, some number theory lovers like Michael Filaseta could publish more articles related to number theory and other work to let the public know.