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88 Lines About 44 Mathematicians

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- 1. The song below is a parody of 88 Lines About 44 Women by The Nails.
- 2. Biographies of all of the mathematicians mentioned below are available at http://turnbull.mcs.st-and.ac.uk/~history/. My choices reflect a combination of importance, personal taste and favoritism, and convenience (and have a mostly modern twist). These 44 mathematicians are in no way meant to reflect the "top" 44 possibilities or anything of the sort.
- 3. Acknowledgement: I thank Lowell Beineke for ensuring that I spelled Leibniz correctly.

Lyrics

Carl Gauss the child prodigy gained fame for counting and results aplenty. Bourbaki was a different type, he was one who represented many. Zeeman likes singularities, he put on a catastrophic show. Smale proved nontrivial theorems on the sands of Rio.

Dodgson had a different name, he designed a wonderland. Fermat liked to play with numbers, a bigger margin or smaller hand? Knuth had this special way of turning math into a paper. Mark Kac was into spectral theory, hearing drum shapes were his caper.

Einstein was an archetype,
1905 was his miracle year.
Landau's books are very famous,
most "new" results are already in here. :)
Isaac Newton invented calculus,
future work has been derivative.
Gottfried Leibniz was also around,
he too had calculus to give.

Coxeter insisted he was not a ship, he preferred geometry. Chern also liked that stuff, he even brought us MSRI. Edward Lorenz gave us butterflies and helped to dawn the age of chaos. Poincaré also saw that path, sans computers he started that craze!

Fourier transformed periodic functions, oscillations gave him his kicks. Gibbs was a phenomenon, a father of statistical mechanics. Bessel functioned as an astronomer, though he was a mathematician too. Fredholm gave an alternative, how many solutions are there for you?

Emmy Noether was a pioneer, she did a lot with symmetry. George Birkhoff studied many topics, e.g., he liked ergodicity. Mary Cartwright spanned pure and applied, she helped pioneer systems dynamical. Serge Lang was quite prolific, he wouldn't suffer fools at all.

Uh-uh. Not Serge Lang.

Hilbert tried to make things simple, by enumerating 23 problems. Cauchy however was quite complex, studying elasticity and integrals. von Neumann fathered computation, though that isn't close to all he did. Turing was into algorithms, into culture his machine has slid.

Stokes liked math and physics, he produced fluid equations bona fide. Gödel wasn't quite complete, a major feat, I must confide. Möbius wrought a geometric strip, we no longer need orientation. Ito's interesting obsession was stochastic differential equations. The Bernoulli family was ubiquitous in myriad parts of mathematics. Bromwich was much less famous, but his contour surely did the trick. Ramanujan was a legend, his math notebook is rather full. Riemann started several trends with his hypothesis and integral. Martin Kruskal was solitary, waves and asymptotics were his thing. G. H. Hardy was much more pure, 'useless' math made his heart sing.

Richard Courant went the other way, with an Institute and mathematical physics. John Nash studied games and fixed points, his story and Nobel pleased the critics. Hawking has become a rock star, he has really gone quite far. Archimedes spiraled in but despite orders was done in. Erdős loved only mathematics, graphs and numbers make for enticing trysts. Euler hardly ever missed, I chose him to end this list.

Eighty-eight lines about forty-four mathematicians.

Until recently, Mason Porter was Professor of Nonlinear and Complex Systems in the Mathematical Institute at University of Oxford. He is now a professor in the Department of Mathematics at UCLA. He has a long history of inflicting 1980s music on people.