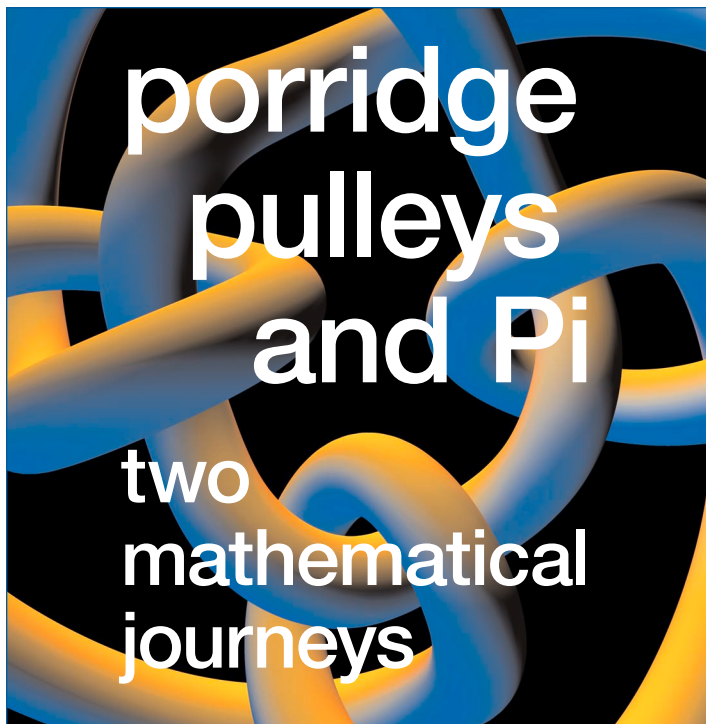




presents

porridge pulleys and Pi: two mathematical journeys

A video produced and directed by George Paul Csicsery



A portrait of two very different mathematicians, *porridge pulleys and Pi* features Fields medalist Vaughan Jones, one of the world's foremost knot theorists and an avid windsurfer, and Hendrik Lenstra, a number theorist with a passion for Homer and all things classical.

porridge pulleys and Pi poses the question: how do we get first-rate research mathematicians? Hendrik Lenstra and Vaughan Jones have had an extraordinary impact on mathematics; this charming documentary gives the viewer a taste of their personalities, mathematical and otherwise. A whirlwind tour of knots, genomics, cryptography, music, Homer, elliptic curves, art, and windsurfing, the video contains sections on the history of Pi, and a surprising discovery involving a cocoa tin and an Escher print.

The contrasting personalities and work styles of Jones and Lenstra show two men with very different backgrounds and approaches. The unifying theme: each finds that the work of doing mathematics makes him happy. Points at which their discoveries intersect with real-world problems and applications show how mathematics is harnessed to resolve questions in other areas.

Biographical sections, vignettes from their private lives, scenes from lectures and seminars, and interviews with colleagues, family members, and journalists, are interwoven in an exploration of how these two highly creative and original individuals think. The result delivers a glimpse of the mathematical achievements of two important contemporary figures.

Available from

Mathematical Sciences Research Institute

17 Gauss Way

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A video by George Paul Csicsery

(28:30 minutes) MSRI © 2004 ISBN 0-9639903-2-2

"I seem to have a special gift in seeing problems where other people don't see problems. Things are happening and you say, well that is something that asks for an explanation. And of all those problems that you see, you just pick out those where you see a possibility of getting your finger behind it."

— Hendrik Lenstra

"If I had an advantage in my career it was that I had really followed my own path. And I ended up having some ideas that no one else had. It was really an amazingly rapid trip from the most abstract realms of modern mathematics to putting DNA in test tubes and seeing what happens, and taking electron micrographs of things, and the fight against cancer and AIDS. It was extremely unlikely and very exhilarating."

— Vaughan Jones



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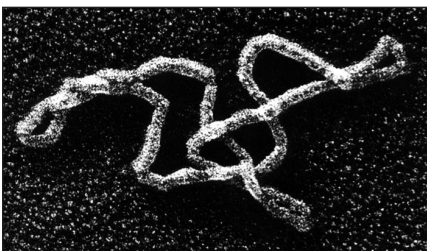
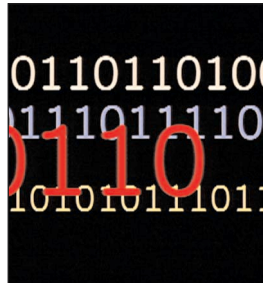


"Two of the most likable mathematical personalities on planet earth come across as so different, honest, passionate, and wonderfully human... A path-breaking piece of work that will create interest in mathematics and its practitioners among many audiences. At the same time it dashes some of the less pleasant stereotypes of mathematicians."

— **Donald J. Albers**,
Associate Executive Director
Director of Publications,
The Mathematical Association of America

"This delightful film offers intriguing, intertwined glimpses of two mathematicians doing what they truly love. From hints of deep mathematics, involving numbers and knots, to images of windsurfing, swimming, singing, and other pastimes, it deftly illuminates the diverse elements of a rich mathematical life."

— **Ivars Peterson**, Science News



"One thing both have in common is that their work has found important real-life applications of some extremely abstract pure mathematics, the way DNA replicates in the case of Jones, and data encryption for Lenstra. Csicsery's film provides a much needed human face to modern mathematics."

— **Keith Devlin**, Executive Director, Center for the Study of Language and Information, Stanford University

Web Links

porridge pulleys and Pi

<http://www.msri.org/events/ppp>

Mathematical Sciences Research Institute

www.msri.org

Vaughan F. R. Jones

<http://www.math.auckland.ac.nz/Careers/vaughan/vaughan.htm>

Vaughan Frederick Randal Jones

http://www-gap.dcs.st-and.ac.uk/~history/Mathematicians/Jones_Vaughan.html

The KnotPlot Site

<http://www.cs.ubc.ca/nest/imager/contributions/scharein/KnotPlot.html>

The International Guild of Knot Tyers

<http://www.igkt.net>

Nicholas R. Cozzarelli

<http://mcb.berkeley.edu/faculty/BMB/cozzarellin.html>

The Wisdom of Hendrik W. Lenstra, Jr.

<http://www.matem.unam.mx/~magidin/lenstra.html>

Hendrik W. Lenstra, Jr.

<http://www.math.leidenuniv.nl/~hwl>

Escher and the Droste Effect

<http://escherdroste.math.leidenuniv.nl>

Escher's Print Gallery at Stanford

<http://math.stanford.edu/~henrys/printgallery>

Ludolph Van Ceulen

<http://www-history.mcs.st-and.ac.uk/Posters/1231.html>

Pi in the Pieterskerk (in Dutch)

<http://www.math.leidenuniv.nl/~naw/serie5/deel01/jun2000/pdf/pi-dag.pdf>

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