

RESEARCH STATEMENT

Original Creative Work

Citation: Noel Patson, Recorded or Rendered Work, Web Exhibition, *Overhanging Cards* Wolfram Mathematica.

<http://demonstrations.wolfram.com/OverhangingCards/>

Research Background

The demonstration is an interactive display that relates the harmonic series to a pack of cards. This approach is appealing to both kinaesthetic and visual learners. The concept is taken from: J. Derbyshire, *Prime Obsession: Bernhard Riemann and the Greatest Unsolved Problem in Mathematics*, Washington, DC: Joseph Henry Press, 2003 pp. 3–9.

Research Contribution

- Innovation – This is the first rendition of an interactive presentation of the harmonic series as it relates to a deck of cards. The demonstration relates the first 9 terms of the series with the top 9 cards and presents the amount of overhang as a number and also as a portion of the series as is permitted by the space restrictions.

Research Significance

The demonstration has been through a rigorous review process[†].

[†] <http://demonstrations.wolfram.com/FAQ.html>

The demonstration has been referenced in the following 3 websites

<http://www.tutorvista.com/ks/sequence-picture-cards>

<http://objetoseducacionais2.mec.gov.br/handle/mec/6518>

<http://kojiu.com/?itemid=59610>

Author: Noel Patson

Date: July 2008

ACQUIRE - Central Queensland University Institutional Repository <http://acquire.cqu.edu.au>