Brailey and Me (and You)
in all Dimensions

Jonathan M. Borwein Frsc Faaas Fbas Faa Fams Frsnsw

Director, CARMA, the University of Newcastle

August 22, 2015

Revised: 20-08-2015

After dinner presentation at Workshop in honour of Brailey Sims
https://carma.newcastle.edu.au/meetings/sims2015/

The BraileyFest

PRIORITY RESEARCH CENTRE
COMPUTER ASSISTED RESEARCH MATHEMATICS
AND ITS APPLICATIONS

THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

**Workshop on Analysis and its Applications
in Honour of Brailey Sims
21 – 23 August 2015
Room V111 – Mathematics Building**

Friday 21st August
2:00   Aidan Sims (University of Wollongong)
3:00   *Coffee – V205 – CARMA Room*
3:30   Ian Searston (University of Newcastle)
4:00   Theo Bendit (University of Newcastle)
4:30   John Giles (University of Newcastle)
5:00   Łukasz Piasecki (Lublin Poland)
5:30   *Reception – Mathematics Tea Room*

Saturday 22nd August
9:30   Chris Lennard (University of Pittsburgh)
10:30 *Coffee – V111 Foyer*
11:00 Suthep Suanti (Chiang Mai University)
12:00 Jamnian Nantadilok (Lampang Rajabhat University)
12:30 *Lunch – V111 Foyer*
2:30   Warren Moors (University of Auckland)
3:30   Ali Eshragh (University of Newcastle)
4:00   *Coffee – V111 Foyer*
4:30   Mike Meylan (University of Newcastle)
5:00   Chris Kellett (University of Newcastle)
6:30   *Conference Dinner - Master of Ceremonies: Gerard Joseph, IBM Canberra
       Merewether Surf House – Henderson Parade, Merewether*

Sunday 23rd August
10:00 Jeff Hogan (University of Newcastle)
10:30 Mumtaz Hussain (University of Newcastle)
11:00 *Coffee - V111 Foyer*
11:30 Ohad Giladi (University of Newcastle)
12:00 Bishnu Lamichhane (University of Newcastle)
12:30 Brailey Sims (University of Newcastle)
1:00   *Lunch - V111 Foyer*

CELEBRATING 50 YEARS
50
1965-2015

CARMA

CARMA

CELEBRATING 50 YEARS
50
1965-2015

Menu

Entree
Garlic prawns in white wine cream sauce, herb salad & grilled bread
Crumbed lamb cutlet, zucchini, radicchio & salsa verde

Main
Roasted chicken supreme, zucchini fritter, smokey tomato relish &
fennel
N.T. barramundi, smoked potato croquette, crushed broad bean salad &
finger lime butter

Dessert
Frangipani tart, mascarpone & poached pear
Sticky date pudding & salted caramel sauce

Program
- 6.30pm - Welcome – Gerard Joseph
- Entree
- Main course
- "Brailey and Me" – Jon Borwein
- Dessert
- Brief remarks
  - Chris Lennard
  - Jamnian Nantadilock
  - Suthep Suantai
  - George Willis
  - Barrie Stokes
- Concluding remarks
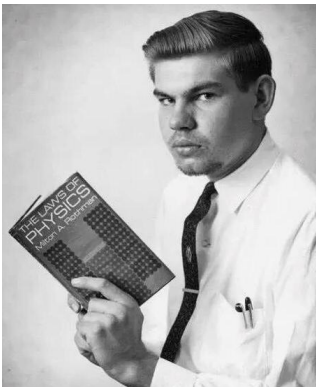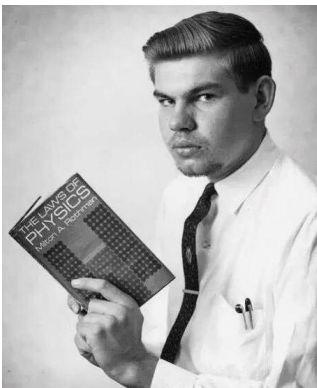 - Gerard Joseph, Jon Borwein and Brailey Sims

Outline

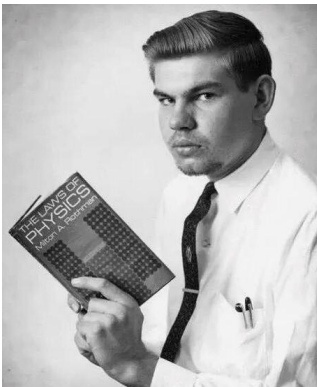# Brailey as a Youth

The young scientist

Brailey as a Youth

The young scientist

- Brailey knows a lot about a lot of different things

Brailey as a Youth

The young scientist

- Brailey knows a lot about a lot of different things
- Student politician, defrocked scout, and early wine collector

Brailey as a Youth

NBHS 1962 Class 3C

Back row: *(l to r)* Jeff Lawrie, Phil Mooney, Jeff Andrews, Dave Wicks, Ian Parsons, Jeff Green, Al Storck, Brailey Sims **4th row:** *(l to r)* Bob Beautement, Michael Sampson, Gary Newman, John Morphet, William Bates, Jeffrey Andrew, Ian Mackie, Greg Tyler, Allan Briggs, David Caddies, Garry Marshall **3rd row:** *(l to r)* Ken Chegwidden, Terry Chadban, Greg Barlow, 159, Peter Chenery, Ross Homard, 160, John Minehan, Philip Hofman **2nd row:** *(l to r)* Colin Henderson, 162, Peter Nicholson, Grahame Beasley, 164, John Booth, Trevor Coles, Gary Cotterill, Phillip Voysey **Front row:** *(l to r)* James Cousins, Roger Wingett, Terry Linter, James Penfold, Stuart Moore **Others in Class:** John Booth, James Cousins, Peter James, Peter Nicholson, 169 Patterson, Edward Reynolds, Paul Simpson, Greg Tyler

The young scholar (top right)

Brailey has Many Children

Brailey has Many Children

- Five children and three grandchildren

Brailey's CV

Qualifications:

BSc (Hons I and University Medal) [University of Newcastle, 1969]

PhD [University of Newcastle, 1972], thesis: *On Numerical range and its application to Banach algebra*, Supervisor: A/Prof John R. Giles.

Current Appointment:

Associate Professor, School of Mathematical and Physical Sciences, The University of Newcastle, Australia [Three year post-retirement contract at 35% FT]

Previous Academic appointments:

Associate Professor, School of Mathematical and Physical Sciences, The University of Newcastle, Australia [January 1990 - March 2012]

Senior Lecturer, Department of Mathematics, The University of New England [1972-1989]

Visiting Appointments:

Distinguished Visiting Professor at the University of Saville (2013)

Visiting Professor CIMAT, Mexico (2004)

Distinguished Visiting Professor Chiang Mai University, Thailand (2002, 2003, 2004, 2010)

Distinguished Visiting Professor at 6 Korean Universities in 1999

Distinguished Visiting Professor at the University of Pretoria, South Africa, (1997)

Distinguished Visiting Scholar at the University of Valencia, Spain (1997)

Visiting Scholar at Simon Fraser University (1996)

Visiting Scholar at Kent State University (1986)

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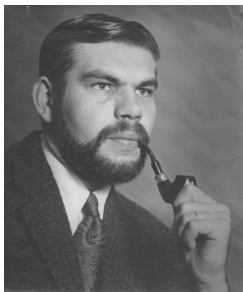Distinguished Visiting Professor at the University of Pretoria, South Africa, (1997)

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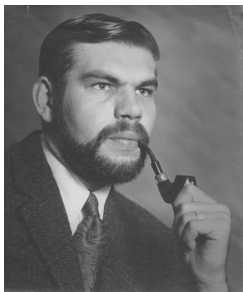
- A happy traveller

First encounters

Brailey as GH Hardy (197x)
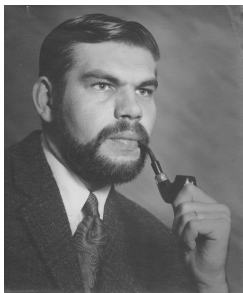
First encounters

- 1971 BS nearly started Great Fire of Edinburgh
- 1977 John Giles sabbatical at Dalhousie (Seattle)

Brailey as GH Hardy (197x)

First encounters

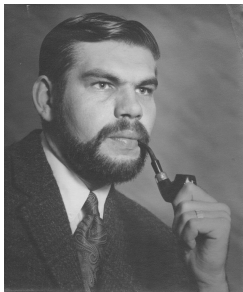- 1971 BS nearly started Great Fire of Edinburgh
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Brailey as GH Hardy (197x)

First encounters

- 1971 BS nearly started Great Fire of Edinburgh
- 1977 John Giles sabbatical at Dalhousie (Seattle)
- 1982 BS at Dalhousie (Queens)
- 1988 JMB in Newcastle, Armidale and Canberra

Brailey as GH Hardy (197x)

Brailey and JMB's CV

Matches: 5

Batch Download: [**Reviews (HTML)** ▾] Retrieve Marked | Retrieve First 50 | Unmark All

Publications results for "Author=(Borwein) AND Author=(Sims)"

MR3293546 Reviewed Borwein, Jonathan M.; Sims, Brailey; Tam, Matthew K. Norm convergence of realistic projection and reflection methods. *Optimization* 64 (2015), no. 1, 161–178. (Reviewer: Patrick L. Combettes) 47J25 (47H09 47H10 90C25 90C48)
PDF | Clipboard | Journal | Article

MR3225456 Reviewed Borwein, David; Borwein, Jonathan M.; Sims, Brailey On the solution of linear mean recurrences. *Amer. Math. Monthly* 121 (2014), no. 6, 486–498. 39B12 (15B51 65Q30)
PDF | Clipboard | Journal | Article

MR2858834 Reviewed Borwein, Jonathan M.; Sims, Brailey The Douglas-Rachford algorithm in the absence of convexity. *Fixed-point algorithms for inverse problems in science and engineering*, 93–109, Springer Optim. Appl., 49, *Springer, New York*, 2011. (Reviewer: A. G. Kartsatos) 47N10 (47H10 47J25 65J15 90C26)
PDF | Clipboard | Series | Chapter

MR0763236 Reviewed Borwein, Jon M.; Sims, Brailey Nonexpansive mappings on Banach lattices and related topics. *Houston J. Math.* 10 (1984), no. 3, 339–356. (Reviewer: Gregory B. Passty) 47H10 (46A40 46B20)
PDF | Clipboard | Journal | Article

MR0690312 Reviewed Borwein, Jonathan; Sims, Brailey Nonexpansive mappings on Banach lattices. *C. R. Math. Rep. Acad. Sci. Canada* **5** (1983), no. 1, 21–26. 46A40 (46B20 47H09)
PDF | Clipboard | Journal | Article

Brailey and JMB's CV

AMERICAN MATHEMATICAL SOCIETY
MathSciNet 75
Mathematical Reviews

University of Newcastle

ISSN 2167-5163

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PDF | Clipboard | Journal | Article

- 5 papers, 1 in review, 1 being invented, and one book review

Fixed point encounters

Select alternative format ▾

Publications results for "Author=(Borwein) AND Author=(Sims)"

MR0763236 (86e:47059) Reviewed

Citations
From References: 15
From Reviews: 5

Borwein, Jon M.(3-DLHS); Sims, Brailey(5-NENG)
Nonexpansive mappings on Banach lattices and related topics.
Houston J. Math. 10 (1984), no. 3, 339–356.
47H10 (46A40 46B20)
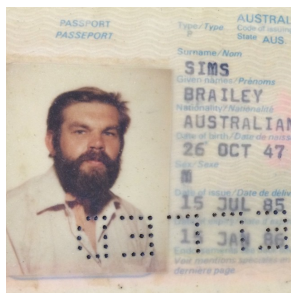PDF | Clipboard | Journal | Article | Make Link

A Banach space X has the fixed point property for nonexpansive mappings [f.p.p.] if every nonexpansive self-mapping of a nonempty weakly compact convex subset of X has a fixed point. Using a lattice-theoretic approach, the authors present criteria for a Banach space to have the f.p.p.

Let $d(X, Y)$ denote the Banach-Mazur distance of two B-spaces; let $\alpha(X) := \mathrm{Sup}\{\| |x| \vee |y| \| : \|x\| \leq 1,$ $\|y\| \leq 1\}$ denote the Riesz angle of a B-lattice X. The B-lattice X is said to be weakly orthogonal if for every sequence $\{x_n\}$ which converges weakly to x_0 we have $\liminf_n \liminf_m \| |x_n - x_0| \wedge |x_m - x_0| \| = 0$.

Theorem 5.1: A B-space X has the f.p.p. if there exists a weakly orthogonal B-lattice Y such that $d(X, Y) \cdot \alpha(Y) < 2$. Corollaries: (i) A weakly orthogonal B-lattice X with $\alpha(X) < 2$ has the f.p.p.; (ii) a B-space X has the f.p.p. if for some Γ and $1 < p < \infty$, we have $d(X, l_p(\Gamma)) < 2^{1/q}$, where $p^{-1} + q^{-1} = 1$; (iii) a B-space X has the f.p.p. if either $d(X, c(\Gamma)) < 2$ or $d(X, c_0(\Gamma)) < 2$.
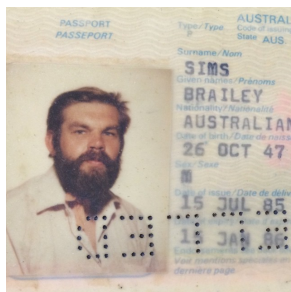
The authors also prove fixed point theorems in M-spaces and abstract L_p spaces, $1 \leq p \leq \infty$, pointing out that their results suggest the conjecture that a B-space X has the f.p.p. if and only if X contains no isometric copy of $\mathscr{L}_1[0,1]$.

Reviewed by Gregory B. Passty

Further encounters

In many places

1985 Passport

Further encounters

In many places

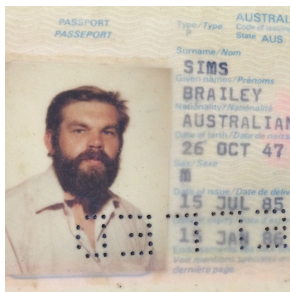- 1989, 1990 at Luminy (Marseilles)

1985 Passport

Further encounters
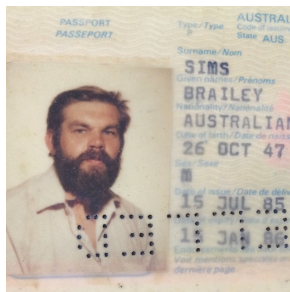
In many places

- 1989, 1990 at Luminy (Marseilles)
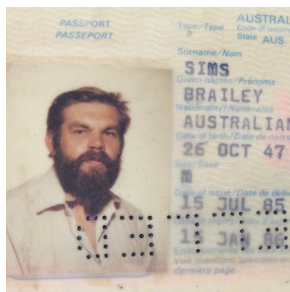- 1991 in Halifax

1985 Passport

Further encounters

In many places

- 1989, 1990 at Luminy (Marseilles)
- 1991 in Halifax
- 1993, 1995, 1998 in Newcastle, Tasmania, etc

1985 Passport

Further encounters

In many places

- 1989, 1990 at Luminy (Marseilles)
- 1991 in Halifax
- 1993, 1995, 1998 in Newcastle, Tasmania, etc
- 1996 BS sabbatical in Vancouver

1985 Passport

Further encounters

Fuschia's graduation (2007)

Further encounters

- 2001 in Sicily (with Nash)

Fuschia's graduation (2007)

Further encounters

- 2001 in Sicily (with Nash)
- 1999/2000 Aidan at CECM in Vancouver

Fuschia's graduation (2007)

Further encounters

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- 2001, 2003, 2005 in Newcastle, Perth etc.

Fuschia's graduation (2007)

Further encounters

- 2001 in Sicily (with Nash)
- 1999/2000 Aidan at CECM in Vancouver
- 2001, 2003, 2005 in Newcastle, Perth etc.
- 2008 JMB moves to Newcastle

Fuschia's graduation (2007)

In many places

ChiangMai (2013)

In many places

ChiangMai (2013)

Brailey now (and in the Future)

Brailey now (and in the Future)

- Several theses over the years (Tam, Searston, Searston)

Brailey now (and in the Future)

- Several theses over the years (Tam, Searston, Searston)
- Plus really tall sons

Thank you

... and good Hunter wine

Thank you

Conclusion. We continue to be fascinated by a blend of functional analysis, fixed point theory and optimisation together with experimental mathematics. Also politics, literature, cricket (?)

... and good Hunter wine