Publications

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When the “Author Accepted Manuscript” is in the University of Warwick’s open access depository the web link for downloading is given after the publication’s details.

   http://etheses.dur.ac.uk/7152/1/7152_4334.PDF?UkUDh:CyT

   http://www.topajka-shaw.co.nz/UFEMD.htm

Edited Books:


Chapter or contribution to a Book:


7. M. E. Brettle and D. G. Brown, (Ed.), ‘Steel building design: Worked examples for students,’ SCI Publication P376, Steel Construction Institute, Silwood, Ascot, 2009. ISBN 978-1-85942-191-8 Member of drafting team for worked examples and checker of design procedures; with responsibility for the section on the design of a fully laterally restrained beam.


Refereed Journal:


http://link.springer.com/article/10.1007%2FBF01501175#page-1

34. J. E. Hall, and J. T. MOTTRAM, 'Fiber-reinforced plastic (FRP) concrete members having combined tensile reinforcement and permanent form-work: Short-term behavior', *Journal of Composites for Construction*, 2 2, (1998), 78-86. ISSN 1090-0268


http://jcm.sagepub.com/content/35/7/577.abstract

http://www.icevirtuallibrary.com/content/article/10.1680/stbu.2002.152.1.87

39. J. T. MOTTRAM, and M. Aberle, 'When should shear-flexible stability functions be used in elastic structural analysis?' *Structures and Buildings*, 152 1, (2002), 31-41. ISSN 0965-0911
http://www.icevirtuallibrary.com/content/article/10.1680/stbu.2002.152.1.31

http://pil.sagepub.com/content/216/2/133.abstract

http://www.icevirtuallibrary.com/content/article/10.1680/stbu.2003.156.2.205


http://inderscience.metapress.com/content/1wuj56ld76qjkbxw/


47. J. T. MOTTRAM, ‘Shear modulus of standard pultruded FRP material,’ *Journal of Composites for Construction*, 8 2, (2004), 141-147. ISSN 1090-0268

http://pid.sagepub.com/content/218/12/1393.abstract


http://ascelibrary.org/doi/abs/10.1061/%28ASCE%290733-9445%282005%29131%3A5%28851%29?journalCode=jsendh

http://ascelibrary.org/doi/abs/10.1061/%28ASCE%290899-1561%282006%2918%3A5%28700%29
http://wrap.warwick.ac.uk/32991/

http://www.icevirtuallibrary.com/content/article/10.1680/mpal.2007.160.3.129
http://wrap.warwick.ac.uk/46615/

http://ascelibrary.org/doi/abs/10.1061/(ASCE)CC.1943-5614.0000043
http://wrap.warwick.ac.uk/16590/

54. J. T. MOTTRAM, ‘Does performance based design with fibre reinforced polymer
components and structures provide any new benefits and challenges?’ *The Structural Engineer, 89* 6, (2011), 23-27. ISSN 0039-2553


56. M. C. Evernden and J. T. MOTTRAM, ‘Closed-form equations for flange force and maximum deflection of box-beams of fiber reinforced polymer with partial shear interaction between webs and flanges,’ *Advances in Structural Engineering, 14* 6, (2011), 991-1004. ISSN 1369-4332


[http://www.icevirtuallibrary.com/content/article/10.1680/coma.2012.165.1.3](http://www.icevirtuallibrary.com/content/article/10.1680/coma.2012.165.1.3)


   [http://wrap.warwick.ac.uk/57223/](http://wrap.warwick.ac.uk/57223/)

   [http://wrap.warwick.ac.uk/54473/](http://wrap.warwick.ac.uk/54473/)


   [http://wrap.warwick.ac.uk/56528/](http://wrap.warwick.ac.uk/56528/)

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   [http://wrap.warwick.ac.uk/60119/](http://wrap.warwick.ac.uk/60119/)

   [http://wrap.warwick.ac.uk/58216/](http://wrap.warwick.ac.uk/58216/)

   [http://wrap.warwick.ac.uk/63934/](http://wrap.warwick.ac.uk/63934/)

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http://wrap.warwick.ac.uk/67075/

http://wrap.warwick.ac.uk/69583/

Gold Access http://dx.doi.org/10.1016/j.istruc.2015.03.007

http://dx.doi.org/10.1016/j.compstruct.2015.06.048

http://wrap.warwick.ac.uk/71002/

http://wrap.warwick.ac.uk/74987/

http://ascelibrary.org/doi/abs/10.1061/(ASCE)CC.1943-5614.0000608
http://wrap.warwick.ac.uk/69595/

80. A. M. Girão Coelho, J. T. MOTTRAM and N. S. Matharu, 'Virtual characterization of delamination failures in pultruded GFRP composite angle cleats,’ *Composites Part B: Engineering*, 90, (2016), 212-222. ISSN: 1359-8368
10.1016/j.compositesb.2015.12.025
http://wrap.warwick.ac.uk/75804/

doi:10.1016/j.matdes.2016.02.026
http://wrap.warwick.ac.uk/77093/

82. B. Zafari, J. Qureshi, J. T. MOTTRAM and R. Rusev, 'Static and fatigue performance of resin injected bolts for a slip and fatigue resistant connection in FRP bridge engineering,' Structures, 7, (2016), 71-84. ISSN: 2352-0124
http://wrap.warwick.ac.uk/78996/

Non-refereed Journal articles:


84. J. T. MOTTRAM, 'University research in the West Midland Counties Branch,' Research Update article, The Structural Engineer, 82 10, (2006), 19-20. ISSN 0039-2553

Internal Report Series:


89. ‘Department of engineering higher degrees by research student handbook,’ Postgraduate Degrees Committee, Department of Engineering, WU, Versions I-II (1996-1999), pp. 70. Prepared and maintained by J. T. MOTTRAM.


92. J. T. MOTTRAM, 'Literature database on R&D with pultruded fibre reinforced polymers', School of Engineering, University of Warwick, >2300 entries and updated
Book Articles (Conferences, CPD courses and Workshops):


105. (By invitation) J. T. MOTTRAM, ‘Pultruded profiles in construction: A review,’ in Proceedings 1st Israeli Workshop on Composite Materials for Civil Engineering


List of publications – Professor J Toby Mottram


Presentations with no written paper. Invitations to address conferences, Universities, companies and learned societies:


168. (Invited and expenses paid) J. T. MOTTRAM, ‘Design charts for the thermal
List of publications – Professor J Toby Mottram


175. (Expenses paid) J. T. MOTTRAM, ‘Semi-rigid connections for frames of fibre-reinforced polymer,’ 2nd meeting of the COST C1 project Working Group 7 on Polymeric Composite Structures, University of Patras, Greece, 6-7 Sept. 1996.


183. (Invited) R. P. Jones, W. Hall, and J. T. MOTTRAM, ‘Finite element modelling and


190. (Invited) J. T. MOTTRAM, ‘Forensic engineering: Learning from failure, with an emphasis of its Impact to the marine sector,’ Seminar to the Fluid Structure Interactions Research Group and MSc Students in the School of Engineering at University of Southampton, 2 March 2006.

191. (Key note address) J. T. MOTTRAM, ‘Challenges for the design of connections and joints in all-FRP construction,’ IUAV-AICO Seminar on Costruzioni in Materiale Composito – All FRP Constructions, (IUAV) University of Venice, 18 September 2007.

192. (Chairman’s Address) J. T. MOTTRAM, ‘New build with fibre reinforced polymer shapes,’ To members of the Midland Counties Branch to the Institution of Structural Engineers, 12 February 2009.


197. (Invited and expenses paid) J. T. MOTTRAM, ‘Innovative composites and nano ideas,’ Opening talk to breakout session at 1st meeting of EPSRC Network LIMES.NET (Network for Low Impact Materials and innovative Engineering Solutions for the Built Environment), University of Bath, 15 September 2011.
198. **(Visiting Professor)** J. T. MOTTRAM, ‘New build with fibre reinforced polymer shapes and systems,’ to students and staff at IUAV Venezia, Italy, 8 November 2012.


200. J. T. MOTTRAM, ‘New build with fibre reinforced polymer shapes and systems,’ to students and staff in the Department Civil Engineering at Coventry University, 23 January 2013.

201. **(Visiting Professor)** J. T. MOTTRAM, ‘Simple design approaches and new ways for composite materials,’ Talk for architects and Engineers in a CDP two-day workshop, Laboratorio di Scienza delle Costruzioni (LabSCo), Università IUAV di Venezia, Venice, Italy, 7 February 2013.


204. J. T. MOTTRAM, ‘New build with fibre reinforced polymer shapes and systems,’ to students and staff in the Department Civil Engineering at Imperial College, London, 11 July 2013.


211. **(Invited)** J. T. Mottram, ‘Structural engineering research at Warwick University for design guidance,’ NGCC Industry Showcase, NCC, Bristol, 23 April 2015.

failure of pultruded connections with three-dimensional finite element approach,' in Session 6.1 to Proceedings of 18th Inter. Conf. on Composite Structures (ICCS18), Lisbon, 15-18 June 2015.

213. S. A. Grammatikos, R. J. Ball, M. C. Evernden, B. Zafari, and J. T. MOTTRAM, ‘Structural deformation assessment of glass fibre reinforced polymers subjected to hygrothermal aging,’ in Session 8.1 to Proceedings of 18th Inter. Conf. on Composite Structures (ICCS18), Lisbon, 15-18 June 2015.


Other output:


Book reviews:


Letters and publicity items:


Philatelic Studies:


External and Internal Reports:


237. J. T. MOTTRAM, ‘Composite steel concrete beams with pin-connected shear studs -
Test No. 8,’ Report to Pneutek (Europe) Ltd., Warwick University, (August 1997), pp. 5.


246. J. T. MOTTRAM, ‘Crane load testing of a GRP bridge for National Grid,’ Final Report to Redman Fisher Composite Division, Warwick University, (May 2004), pp. 17. (Confidential)


251. J. T. MOTTRAM, ‘Factual report on MIG brazed connections with galvanised steel cold formed thin gauge sections,’ Report to Henley Steel Systems Ltd., Warwick University, (Nov. 2007), pp. 30. (Confidential)

252. J. T. MOTTRAM, L. C. Bank, R. J. Gentry and C. K. Shield, ’Mandatory and non-mandatory commentary for Chapter 8 on Bolted Connections to the prestandard of Load and Resistance Factor Design (LRFD) of Pultruded Fiber-Reinforced Polymer (FRP) Structures,’ Current version to American Society of Civil Engineers on 1 September 2010. Mandatory part is 18 pages and the commentary part is 28 pages.


**National (American) Design Standard**

257. ‘Pre-Standard for load and resistance factor design (LRFD) of pultruded fiber polymer (FRP) structures (Final),’ submitted to American Composites Manufacturer Association (ACMA), 9 November 2010, ACSE, p. 216. Primarily responsible as a drafter of Chapter 8 for the design of Bolted Connections. As member of drafting project team I assisted with the preparation of the other seven chapters in the pre-standard.

**DSc Commentary (available from Personal Web page)**


**Local media**

Five minutes radio interview on ‘Bridge failures’ following the sudden collapse of the I-35W road bridge in Minneapolis, USA. Broadcasted at 17:30 on Thursday 2 August 2007 as a contribution to the Jane Vickers show on Coventry and Warwickshire BBC local radio.