

## EANN A. PATTERSON

### JOURNAL PUBLICATIONS

#### 2011

1. Gineste, J-M., Macko, P, Patterson, EA, Whelan, P, 2011, Three-dimensional automated nanoparticle tracking using Mie scattering in an optical microscope, *J. Microscopy*, 243(2):172-178, 2011
2. Carazo Alvarez, D., Haq, M., Carazo Alvarez, J.D., Patterson, E.A., 2011, Thermoelastic stress analysis of a T-stub model, *Applied Mechanics and Materials*, 70:464-469.
3. Tomlinson, R.A., Du, Y., Patterson, E.A., 2011, Understanding crack tip plasticity – a multi-experimental approach, *Applied Mechanics and Materials*, 70:153-158.
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7. Busch-Vishniac, I., Kibler, T., Campbell, P.B., Patterson, E.A., Guillaume, D., Jarosz, J., Chassapis, C., Emery, A., Ellis, G., Whitworth, H., Metz, S., Brainard, S., Ray, P., 2011, Deconstructing Engineering Education Programmes: The DEEP Project to reform the mechanical engineering curriculum, *European J Engng Education*, 36(3):269-283.
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10. Du, Y., Diaz, F.A., Burguete, R.L., Patterson, E.A., 2011, 'Evaluation using digital image correlation of stress intensity factors in an aerospace panel', *Experimental Mechanics*, 51(1):45-57, 2011.
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12. Colombo, C., Du, Y., James, M.N., Patterson, E.A., Vergani, L., 2010, 'On crack tip shielding due to plasticity-induced closure during an overload', *Fatigue and Fracture of Engineering Materials and Structures*, 33(12):766-777.
13. Patki, A.S., Patterson, E.A., 2010, 'Thermoelastic stress analysis of fatigue cracks subject to overloads', *Fatigue and Fracture of Engineering Materials and Structures*, 33(12):809-821.
14. Backman, D., Cowal, C., Patterson, E.A., 2010, 'Analysis of the effects of cold expansion of holes using thermoelasticity and image Correlation', *Fatigue and Fracture of Engineering Materials and Structures*, 33(12):859-870.
15. Siegmann, P., Alvarez-Fernandez, V., Diaz-Garrido, F., Patterson, E.A., 2010, 'A simultaneous in- and out-of-plane displacement measurement method', *Optics Letters*, 35(24): 1-4.
16. Wang, W., Mottershead, J.E., Patki, A., Patterson, E.A., 2010, 'Construction of shape features for the representation of full-field displacement/strain data', *Applied Mechanics and Materials*, 24-25:365-370.
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29. Christopher, C.J., James, M.N., Patterson, E.A., Tee, K.F., 2008, 'A quantitative evaluation of fatigue crack shielding forces using photoelasticity', *Engng. Fract. Mechanics*, 75(14):4190-4199.
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#### 2007

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<sup>1</sup> Winner of the PEP Publishing Prize for Best Paper in 2009.

<sup>2</sup> Winner of the 2008 Paper of Year from the European Joint Research Center

<sup>3</sup> Selected as 'Paper of the Month' in October 2008 by Nano2Life network, see: [http://www.nano2life.de/paper\\_of\\_month.php?pid=16](http://www.nano2life.de/paper_of_month.php?pid=16)

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Patterson, E.A., Brailly, P., Burguete, R.L., Hack, E., Siebert, T., Whelan, M., 2007, 'A challenge for high performance full-field strain measurement systems', *Proc. Photomechanics 2006*, Clermont-Ferrand, France, 9<sup>th</sup> – 13<sup>th</sup> July 2006 (invited plenary paper).

37. Tee K.F., C J Christopher, C.J., James, M.N., Patterson, E.A., 2007, 'New Insights into Plasticity-Induced Crack Tip Shielding via Mathematical Modelling and Full Field Photoelasticity', *Key Engineering Materials* 345-346 pp. 199-204.

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