

Prof Teresa Alonso-Rasgado
PhD

School of Engineering and Materials Science
Queen Mary University of London
Mile End Road
London E1 4NS

tel: +44 (0)20 7882 3028
email: t.alonso@qmul.ac.uk web: www.sems.qmul.ac.uk/t.alonso

2020

Zeroth-order finite similitude and scaling of complex geometries in biomechanical experimentation.
Ochoa-Cabrero R, Alonso-Rasgado T and Davey K. *Journal of The Royal Society Interface* vol. 17, (167) 20190806-20190806. Royal Society, The.

2019

Performance evaluation of surgical techniques for treatment of scapholunate instability in a type II wrist.
Alonso-Rasgado M, Bailey C, Leonardo-Diaz R, Jimenez-Cruz D and Talwalkar S. *International Journal For Numerical Methods in Biomedical Engineering*. Wiley.

Effect of femoral head size, subject weight and activity level on acetabular cement mantle stress following total hip arthroplasty.

Del-Valle-Mojica JF, ALONSO-RASGADO MT, Jimenez-Cruz D, BAILEY C and Board T. *Journal of Orthopaedic Research*. Wiley.

Impact of femoroacetabular impingement and dysplasia of the hip on hip joint sphericity.

BAILEY CG, Diaz-Lopez R, Alonso-Rasgado T, Jimenez-Cruz D and Board T. *Hip International*. Sage Publications.

2018

Validation of biofilm formation on human skin wound models and demonstration of clinically translatable bacteria-specific volatile signatures.

Ashrafi M, Novak-Frazer L, Bates M, Baguneid M, Alonso-Rasgado T, Xia G, Rautemaa-Richardson R and Bayat A. *Scientific Reports* vol. 8, (1).

Cement interface and bone stress in total hip arthroplasty: Relationship to head size.

Alonso-Rasgado T, Del-Valle-Mojica JF, Jimenez-Cruz D, Bailey CG and Board TN. *Journal of Orthopaedic Research* vol. 36, (11) 2966-2977.

Scaling in biomechanical experimentation: a finite similitude approach.

Ochoa-Cabrero R, Alonso-Rasgado T and Davey K. *J R Soc Interface* vol. 15, (143).

Wound healing and cutaneous scarring models of the human skin.

Ashrafi M, Hague A, Baguneid M, Alonso-Rasgado T and Bayat A. *Skin Tissue Models*.

2017

Analysis of tenodesis techniques for treatment of scapholunate instability using the finite element method.

Alonso Rasgado T, Zhang Q, Jimenez Cruz D, Bailey C, Pinder E, Mandaleson A and Talwalkar S. *International Journal For Numerical Methods in Biomedical Engineering* vol. 33, (12).

Evaluation of the performance of three tenodesis techniques for the treatment of scapholunate instability: flexion-extension and radial-ulnar deviation.

Alonso-Rasgado T, Zhang QH, Jimenez-Cruz D, Bailey C, Pinder E, Mandaleson A and Talwalkar S. *Medical and Biological Engineering and Computing* 1-15.

The role of mast cells in tuberculosis: Orchestrating innate immune crosstalk?.

Garcia-Rodriguez KM, Goenka A, Alonso-Rasgado MT, Hernández-Pando R and Bulfone-Paus S. *Frontiers in Immunology* vol. 8, (OCT).

Volatile organic compound detection as a potential means of diagnosing cutaneous wound infections.

Ashrafi M, Bates M, Baguneid M, Alonso-Rasgado T, Rautemaa-Richardson R and Bayat A. *Wound Repair and Regeneration* vol. 25, (4) 574-590.

3-D computer modelling of malunited posterior malleolar fractures: Effect of fragment size and offset on ankle stability, contact pressure and pattern.

Alonso-Rasgado T, Jimenez-Cruz D and Karski M. *Journal of Foot and Ankle Research* vol. 10, (1).

Cutaneous wound biofilm and the potential for electrical stimulation in management of the microbiome.

Ashrafi M, Baguneid M, Alonso-Rasgado T, Rautemaa-Richardson R and Bayat A. *Future Microbiology* vol. 12, (4) 337-357.

Effect of Anconeus Muscle Blocking on Elbow Kinematics: Electromyographic, Inertial Sensors and Finite Element Study.

Miguel-Andres I, Alonso-Rasgado T, Walmsley A and Watts AC. *Annals of Biomedical Engineering* vol. 45, (3) 775-788.

The efficacy of electrical stimulation in lower extremity cutaneous wound healing: A systematic review.

Ashrafi M, Alonso-Rasgado T, Baguneid M and Bayat A. *Experimental Dermatology* vol. 26, (2) 171-178.

2016

Whole genome microarray data of chronic wound debridement prior to application of dermal skin substitutes.

Ashrafi M, Sebastian A, Shih B, Greaves N, Alonso-Rasgado T, Baguneid M and Bayat A. *Wound Repair and Regeneration* vol. 24, (5) 870-875.

The efficacy of electrical stimulation in experimentally induced cutaneous wounds in animals.

Ashrafi M, Alonso-Rasgado T, Baguneid M and Bayat A. *Veterinary Dermatology* vol. 27, (4) 235-e57.

2015

Optimization of an ex vivo wound healing model in the adult human skin: Functional evaluation using photodynamic therapy.

Mendoza-Garcia J, Sebastian A, Alonso-Rasgado T and Bayat A. *Wound Repair and Regeneration* vol. 23, (5) 685-702.

Ex vivo evaluation of the effect of photodynamic therapy on skin scars and striae distensae.

Mendoza-Garcia J, Sebastian A, Alonso-Rasgado T and Bayat A. *Photodermatology Photoimmunology and Photomedicine* vol. 31, (5) 239-251.

Skin substitute-assisted repair shows reduced dermal fibrosis in acute human wounds validated simultaneously by histology and optical coherence tomography.

Greaves NS, Iqbal SA, Hodgkinson T, Morris J, Benatar B, Alonso-Rasgado T, Baguneid M and Bayat A. *Wound Repair and Regeneration* vol. 23, (4) 483-494.

Identification of biomarkers involved in differential profiling of hypertrophic and keloid scars versus normal skin.

Suarez E, Syed F, Alonso-Rasgado T and Bayat A. *Archives of Dermatological Research* vol. 307, (2) 115-133.

Acute cutaneous wounds treated with human decellularised dermis show enhanced angiogenesis during healing.

Greaves NS, Morris J, Benatar B, Alonso-Rasgado T, Baguneid M and Bayat A. *Plos One* vol. 10, (1).

Correction: Acute cutaneous wounds treated with human decellularised dermis show enhanced angiogenesis during healing.

PLOS ONE Staff. *Plos One* vol. 10, (3).

2014

Physico-chemical characteristics of coated silicone textured versus smooth breast implants differentially influence breast-derived fibroblast morphology and behaviour.

Valencia-Lazcano AA, Alonso-Rasgado T and Bayat A. *Journal of The Mechanical Behavior of Biomedical Materials* vol. 40, 140-155.

Skin equivalent tensional force alters keloid fibroblast behavior and phenotype.

Suarez E, Syed F, Rasgado TA, Walmsley A, Mandal P and Bayat A. *Wound Repair and Regeneration : Official Publication of The Wound Healing Society [and] The European Tissue Repair Society* vol. 22, (5) 557-568.

Optical coherence tomography: A reliable alternative to invasive histological assessment of acute wound healing in human skin?.

Greaves NS, Benatar B, Whiteside S, Alonso-Rasgado T, Baguneid M and Bayat A. *British Journal of Dermatology* vol. 170, (4) 840-850.

Numerical study of the hydrodynamic drag force in atomic force microscopy measurements undertaken in fluids.

MÃ©ndez-MÃ©ndez JV, Alonso-Rasgado MT, Correia Faria E, Flores-Johnson EA and Snook RD. *Micron* vol. 66, 37-46.

2013

Characterisation of breast implant surfaces and correlation with fibroblast adhesion.

Valencia-Lazcano AA, Alonso-Rasgado T and Bayat A. *Journal of The Mechanical Behavior of Biomedical Materials* vol. 21, 133-148.

Optimization of the position of the acetabulum in a ganz periacetabular osteotomy by finite element analysis.

Zou Z, ChÃ¡vez-Arreola A, Mandal P, Board TN and Alonso-Rasgado T. *Journal of Orthopaedic Research* vol. 31, (3) 472-479.

Up-regulation of tension-related proteins in keloids: Knockdown of hsp27, α 1-integrin, and pai-2 shows convincing reduction of extracellular matrix production.

Suarez E, Syed F, Alonso-Rasgado T, Mandal P and Bayat A. *Plastic and Reconstructive Surgery* vol. 131, (2).

2012

Changes in the stress in the femoral head neck junction after osteochondroplasty for hip impingement: A finite element study.

Alonso-Rasgado T, Jimenez-Cruz D, Bailey CG, Mandal P and Board T. *Journal of Orthopaedic Research* vol. 30, (12) 1999-2006.

Differential cytotoxic response in keloid fibroblasts exposed to photodynamic therapy is dependent on photosensitiser precursor, fluence and location of fibroblasts within the lesion.

Mendoza J, Sebastian A, Allan E, Allan D, Mandal P, Alonso-Rasgado T and Bayat A. *Archives of Dermatological Research* vol. 304, (7) 549-562.

2011

Analytical solutions for vibrating fractal composite rods and beams.

Davey K and Alonso Rasgado MT. *Applied Mathematical Modelling* vol. 35, (3) 1194-1209.

2009

Simulation based Reliability Assessment of Services in the Context of Functional Products.

Li J-PJ-P, Thompson G and Alonso-Rasgado T. *Safety and Reliability* vol. 29, (4) 47-78.

2007

A solution methodology for contacting domains in pressure die casting.

Rasgado MTA and Davey K. *Applied Mathematical Modelling* vol. 31, (8) 1559-1581.

2006

A rapid design process for Total Care Product creation.

Alonso-Rasgado T and Thompson G. *Journal of Engineering Design* vol. 17, (6) 509-531.

Warm deep drawing of wrought magnesium alloy sheets produced by semi-solid roll strip-casting process.

Watari H, Koga N, Davey K, Haga T and Ragado MTA. *International Journal of Machine Tools and Manufacture* vol. 46, (11) 1233-1237.

Boundary element stress analysis for bi-metallic dies in pressure diecasting.

Rasgado MTA, Davey K, Clark LD and Hinduja S. *Journal of Materials Processing Technology* vol. 175, (1-3) 117-122.

Bi-metallic dies for rapid die casting.

Rasgado MTA, Davey K, Clark LD and Hinduja S. *Journal of Materials Processing Technology* vol. 175, (1-3) 109-116.

Experimental Investigation Into the Thermal Behavior of Copper-Alloyed Dies in Pressure Die Casting.

Clark LD, Alonso Rasgado MT, Davey K and Hinduja S. *Journal of Manufacturing Science and Engineering* vol. 128, (4) 844-859.

Boundary element stress analysis for copper-based dies in pressure die casting.

Rasgado MTA, Davey K, Clark LD and Hinduja S. *Computers & Structures* vol. 84, (3-4) 254-267.

2005

Effects of Rolling Condition on Warm Deep Drawability of Magnesium Alloy Sheets Produced by Twin-Roll Strip Casting.

Watari H, Davey K, Rasgado MTA, Clark LD, Nakamura R and Koga N.

2004

The design of functional (total care) products.

Alonso-Rasgado T, Thompson G and Elfström B-O. *Journal of Engineering Design* vol. 15, (6) 515-540.

Semi-solid manufacturing process of magnesium alloys by twin-roll casting.

Watari H, Davey K, Rasgado MT, Haga T and Izawa S. *Journal of Materials Processing Technology* vol. 155, 1662-1667.

Forming Characteristics of Cast Magnesium Alloy Sheets Manufactured by Roll Strip Casting Process.

Watari H, Paisarn R, Koga N, Nakamura R, Davey K and Rasgado MTA.

Integration over simplexes for accurate domain and boundary integral evaluation in boundary element methods.

Davey K and Rasgado MTA. *Computers & Structures* vol. 82, (2-3) 193-211.

Coarse Preconditioning for Imperfect Contact Problems in Pressure Die Casting.

ALONSO-RASGADO MT, Davey K and Watari H. *Materials Processing and Design Modeling, Simulation and Applications : Numiform 2004 : Proceedings of The 8th International Con. Amer Inst of Physics.*

Semi-solid Twin-roll Casting Process of Magnesium Alloy Sheets.

ALONSO-RASGADO MT, Watari H, Davey K, Haga T and Koga N. *Materials Processing and Design Modeling, Simulation and Applications : Numiform 2004 : Proceedings of The 8th International Con. Amer Inst of Physics.*

Thermal modelling in pressure die casting.

ALONSO-RASGADO MT, Davey K and Watari H. *Materials Processing and Design Modeling, Simulation and Applications : Numiform 2004 : Proceedings of The 8th International Con. Amer Inst of Physics.*

2002

The effect of vibration on surface finish for semisolid and cast components.

Rasgado MTA and Davey K. *Journal of Materials Processing Technology* vol. 125, 543-548.

A coarse preconditioner for multi-domain boundary element equations.

Davey K, Bounds S, Rosindale I and Rasgado MTA. *Computers & Structures* vol. 80, (7-8) 643-658.

2001

Accurate evaluation of integrals present in reciprocity methods.

Davey K and Rasgado MTA. *Computers & Structures* vol. 79, (29-30) 2511-2526.

1999

Semi-analytical integration of sub-parametric elements used in the BEM for three-dimensional elastodynamics.

Davey K and Rasgado MTA. *Computers & Structures* vol. 71, (6) 595-615.

The 3-D elastodynamic boundary element method: semi-analytical integration for linear isoparametric triangular elements.

Davey K, Rasgado MTA and Rosindale I. *International Journal For Numerical Methods in Engineering* vol. 44, (8) 1031-1054. Wiley.