
See:
http://ichrome.com/fastrtm/?page_id=17
https://www.researchgate.net/profile/Fabrizio_Scarpa2
https://scholar.google.com/citations?user=gLySzqAAAAAJ&hl=en

Bristol Composites Institute (ACCIS) and Dynamics and Control Research Group (DCRG)
University of Bristol, UK

Summary:
Fabrizio has 20 years of experience in the field of modeling and manufacturing of composites, auxetics and porous materials. Fabrizio has lead several EPSRC, Royal Society and FP6, FP7, H2020 projects and holds five patents in the design and manufacturing of auxetic cellular structures. Fabrizio is responsible for the theoretical formulation and the validation of the FastRTM solver.

Research Interests:
My research activities are related to auxetic materials and structures, smart and nanomaterials, composites, natural fibres, vibroacoustics, morphing and adaptive structures. I develop designs, models, prototypes and perform mechanical and multidomain characterisation. I have several projects at the moment looking at gradient structures, ZPR lattices, auxetic foams development, vibration damping, metal rubber, graphene, BN and GaN nanostructures and nano sensors.

Selected Publications:
Scarpa, F, Tomlin, PJ. On the transverse shear modulus of negative Poisson's ratio honeycomb structures. Fat Frac Eng Mat Struct 2000; 23: 717–720
Bezazi A and Scarpa F 2009 Tensile fatigue of conventional and negative Poissons ratio open cell PU foams Int. J. Fatigue 31 488–494


Rossiter J, Takashima K, Scarpa F, Walters P and Mukai T 2014 Shape memory polymer hexachiral auxetic structures with tunable stiffness Smart Mater. Struct. 23 045007


Nazli Gulsine Ozdemir, Fabrizio Scarpa, Monica Craciun, Chrystel Remillat, Cristian Lira, Yogesh Jagessur and Luiz Da Rocha-Schmidt, “Morphing nacelle inlet lip with pneumatic actuators and a flexible nano composite sandwich panel”, Smart Materials and Structures, Vol. 24, No. 12, 125018, December 2015


Xiaobo Gong, Liwu Liu, Fabrizio Scarpa, Jinsong Leng and Yanju Liu, “Variable stiffness corrugated composite structure with shape memory polymer for morphing skin applications”, Smart Materials and Structures, Vol. 26, No. 3, 035052, March 2017


Hanfeng Yin, Xiaofei Huang, Fabrizio Scarpa, Guilin Wen, Yanyu Chen and Chao Zhang, “In-plane crashworthiness of bio-inspired hierarchical honeycombs”, Composite Structures, Vol. 192 pp 516-527, May 2018

