Dr. Joel Marthelot

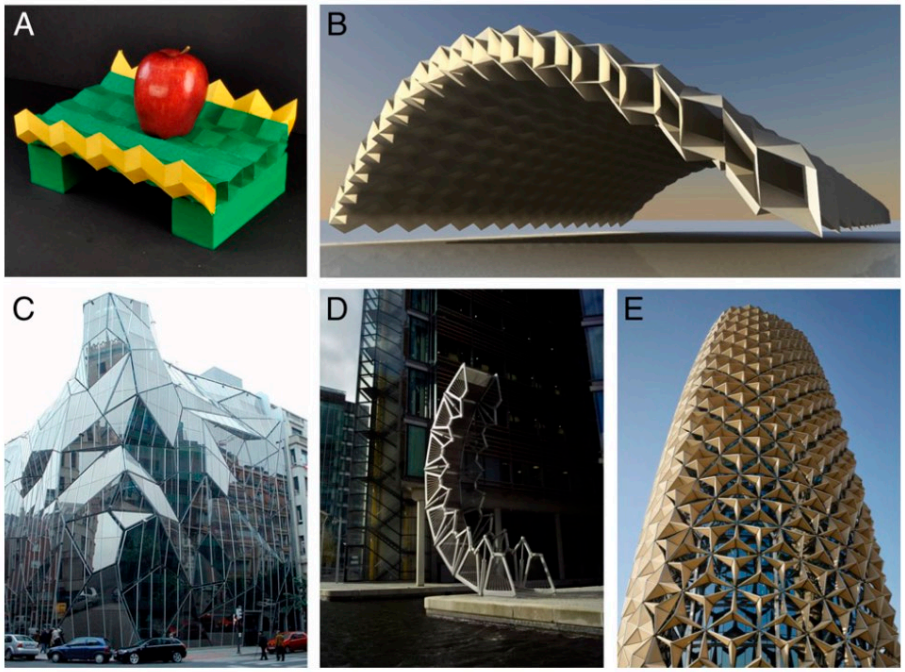

Fig. 1. Origami-inspired engineering. (*A*) Model bridge designed by Filipov et al. (1) comprising a series of zipper-coupled tubes. (*B*) Computer-generated architectural canopy. Adapted from ref. 1. (*C*) Headquarters of the Basque Health Department, Bilbao, Spain. (*D*) The Rolling Bridge, London, United Kingdom. (*E*) Deployable curtain wall for indoor light control, Al Bahr Towers, Abu Dhabi, United Arab Emirates. Images courtesy of (*C*) Wikimedia Commons/Zarateman, (*D*) Steve Speller (photographer) and the Heatherwick Studio, and (*E*) Christian Richters (photographer).

From: Pedro M. Reis, Francisco Lopez Jimenez and Joel Marthelot (EGS Lab, MIT), "Transforming architectures inspired by origami", Proceedings of the National Academy of Sciences, Vol. 112, No. 40, pp 12234-12235, 2015

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Research Interests:
Deformation of slender structures. My scientific interests lie in the study of large deformations of thin structures (shells, plates and rods) and their coupling with fracture, adhesion and fluids.

Autobiography:

Prior to joining MIT in 2014, I was a PhD student in Paris working with José Bico and Benoît Roman on mechanical stability of thin films. In 2014, I was a Raman-Charpak fellow with Narayanan Menon in TIFR, India. I have worked with Francisco Melo at USACH, Chile in 2012, in Egslab at MIT in 2010 and in Schlumberger research center in Tokyo in 2008.

Selected Publications:

T. Cambau, J. Hure and J. Marthelot, Phys. Rev. E 88, 022204 (2013).

Pedro M. Reis, Francisco Lopez Jimenez and Joel Marthelot (EGS Lab, MIT), “Transforming architectures inspired by origami”, Proceedings of the National Academy of Sciences, Vol. 112, No. 40, pp 12234-12235, 2015

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