One Ph.D. position will be available in the <u>Applied Mechanics of Materials Laboratory</u> of Mechanical Engineering Department at Temple University, Philadelphia, PA, USA. The position will start in the coming **Fall 2017**. The research program will focus on **mechanics and design of reconfigurable mechanical metamaterials**<sup>1</sup> for achieving unprecedented mechanical, photonic, and phononic properties in response to external stimulus, as well as their applications in programmable matter and soft machines. The research will involve a combination of experiments (3D printing, mechanical testing, soft materials synthesis and fabrication etc), analytical modeling, and numerical simulation methods (mainly finite element method).

Candidates with <u>high self-motivation</u>, experimental or modeling background and interests in solid mechanics, mechanical engineering, materials science and engineering are highly encouraged to apply. For international applicants, TOEFL is required. GRE could be waived if you have demonstrated excellence in research or other aspects.

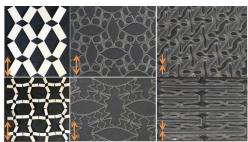
If interested, please send your resume or CV to Dr. Jie Yin at <u>jieyin@temple.edu</u>. For more information, please visit <u>http://sites.temple.edu/jieyin</u>

<sup>1</sup>Some related published work from the group is listed below:

Y. Tang, G. Lin, L. Han, S. Qiu, S. Yang and J. Yin, "<u>Design of hierarchically cut hinges for highly stretchable and reconfigurable metamaterials with enhanced strength</u>", *Advanced Materials* 27, 7181-7190 (2015)



Y. Tang and J. Yin, "<u>Design of cut unit geometry in hierarchical kirigami-based auxetic metamaterials for high stretchability and compressibility</u>", *Extreme Mechanics Letters*, in press (2016)



Q. Zhang, J. Wommer, C. O'Rourke, J. Teitelman, Y. Tang, J. Robison, G. Lin and J. Yin, "Origami and kirigami inspired self-folding for programming three-dimensional shape shifting of polymer sheets with light", Extreme Mechanics Letters, in press (2016)

