

Amsterdam, 09/30/2020

Support letter for the promotion of Dr. Pino Trogu to Full Professor

To whom it may concern,

It is with great pleasure that I support the promotion of Dr. Pino Trogu to full professor at San Francisco State University. I have gotten to know Pino during our recent collaboration on the design of origami-inspired metamaterials, in which we are currently working towards the submission of a manuscript based on his ideas.

I am an associate professor at AMOLF (and part-time at the Eindhoven University of Technology) in the Netherlands, which is a research institute that focusses on the physics of complex and functional materials. Here I lead the Soft Robotic Matter group, where we explore how intelligence can be embodied in robots and materials, mostly through the application and design of nonlinear mechanics. Related to the work of Pino, we have been working towards harnessing origami principles in the design of new "metamaterials", which are materials that derive their properties from their architecture rather than their chemistry. This work has led to several high impact publications, including articles in *Nature* and *Nature Communications*.

During our initial contact, Pino came across as a highly enthusiastic designer and researcher, and I was immediately impressed by his ideas. For example, the geometries he showcased to me exhibit very interesting – yet complex – behavior, and provide important inspiration for the next step of our research in the field of mechanical metamaterials. We are currently collaborating on this line of research, and aim for a publication in a high impact journal. Specifically, in his work he shows that by adding additional hinges to the geometries we have worked on in the past, all structures can be made flat-foldable and multistable. Both are topics that exactly fit our group's interest, yet, up till now we were not able to generalize these concepts.

Having worked in the past with several world-leading designers (e.g. Chuck Hoberman), I really value their input and creativity to generate new insights and ideas that can be applied to fundamental research. As such, I am really excited and looking forward to future collaborations with Pino.

Sincerely,

Johannes Overvelde Associate Professor <u>www.overvelde.com</u> <u>overvelde@amolf.nl</u> +31623557523

Mailing address
P.O. Box 41883
1009 DB Amsterdam

The Netherlands

Visitors
Science Park 104
1098 XG Amsterdam
The Netherlands

Phone +31 (0)20 754 7100 E-mail info@amolf.nl Web www.amolf.nl twitter.com/_amolf

IBAN NL78 ABNA 0642 3835 96 BIC ABNANL2A BTW NL 002882243B01 KvK 41150068