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Education PhD in Physics 9/2013

I graduated as a Doctor of Science in Physics from Aalto University in the fall 2013. The title of my thesis is: Fracture and prediction of heterogeneous materials.

MSc in Physics 10/2007

I graduated as Master of Science from Helsinki University of Technology. The title of my thesis is: Fracture of Fibrous Materials.

Skills Programming

I am familiar with roughly 20 programming languages and fluent with C, Python and Javascript.

Class 3 electrician 9/2012

I have a certification from Finnish Safety and Chemicals Agency (Tukes) to manufacture and install devices operating at less than 1000 volts (1 kV) for commercial use. I excel in analogue electronics and can program simple microprocessors.

Entrepreneur 6/2013

I got a small business certification from Aalto University. I am a co-founder of a startup company employing one full time employee.

Languages My native language is Finnish and I speak and write fluent English. Also, I speak intermediate German and Swedish.

Current Position	Post Doctoral Researcher I work in University of Pennsylvania with Professor Douglas Durian as a post-doctoral researcher with grants from Finnish Cultural Foundation and Wihuri Foundation for submerged hopper research.	3/2014 - 5/2016
Previous Employment	Aalto University I worked in Aalto University part time during my masters studies as a laboratory assistant in fracture research and full time during my graduate studies in the group of Professor Mikko Alava.	6/2003 - 2/2014
	T-Form Oy I am a co-founder of company currently employing one full time employee.	1/2007 -
Teaching	Supervisor of 5 Bachelor-level reports or thesis.	
Impact	13 peer reviewed articles, three published in Physical Review Letters	

A Peer-reviewed scientific articles

1. M.-J. Dalbe, J. Koivisto, L. Vanel, A. Miksic, O. Ramos, M. Alava, and S. Santucci, *Repulsion and Attraction between a Pair of Cracks in a Plastic Sheet*, Physical Review Letters **114**, 1 (2015).
2. A. Mauranen, M. Ovaska, J. Koivisto, L. I. Salminen, and M. Alava, *Thermal conductivity of wood: effect of fatigue treatment*, Wood Science and Technology **49**, 359 (2015).
3. A. Vaikkinen, B. Shrestha, J. Koivisto, R. Kostianen, A. Vertes, and T. J. Kauppila, *Laser ablation atmospheric pressure photoionization mass spectrometry imaging of phytochemicals from sage leaves*, Rapid Communications in Mass Spectrometry **28**, 2490 (2014).
4. J. Koivisto, *Fracture propagation and prediction in heterogeneous materials*, PhD Thesis, Aalto University (2013).
5. A. Miksic, M. Myntti, J. Koivisto, L. Salminen, and M. Alava, *Effect of fatigue and annual rings' orientation on mechanical properties of wood under cross-grain uniaxial compression*, Wood Science and Technology **47**, 1117 (2013).

6. A. Miksic, J. Koivisto, and M. Alava, *Statistical properties of low cycle fatigue in paper*, Journal of Statistical Mechanics: Theory and Experiment **P05002** (2011).
7. L. Laurson, J. Rosti, J. Koivisto, A. Miksic, and M. Alava, *Spatial fluctuations in transient creep deformation*, Journal of Statistical Mechanics: Theory and Experiment **P07002** (2011).
8. J. Rosti, J. Koivisto, and M. Alava, *Statistics of acoustic emission in paper fracture: precursors and criticality*, Journal of Statistical Mechanics: Theory and Experiment **P02016** (2010).
9. M. Mustalahti, J. Rosti, J. Koivisto, and M. Alava, *Relaxation of creep strain in paper*, Journal of Statistical Mechanics: Theory and Experiment **P07019** (2010).
10. J. Rosti, J. Koivisto, L. Laurson, and M. Alava, *Fluctuations and scaling in creep deformation*, Physical Review Letters **105**, 100601 (2010).
11. J. Rosti, X. Illa, J. Koivisto, and M. Alava, *Crackling noise and its dynamics in fracture of disordered media*, Journal of Physics D: Applied Physics **42**, 214103 (2009).
12. J. Rosti, J. Koivisto, P. Traversa, X. Illa, J.-R. Grasso, and M. Alava, *Line creep in paper peeling*, International Journal of Fracture **151**, 281 (2008).
13. J. Koivisto, J. Rosti, and M. Alava, *Creep of a fracture line in paper peeling*, Physical Review Letters **99**, 145504 (2007).

B Non-refereed scientific articles

14. A. Miksic, J. Koivisto, J. Rosti, and M. Alava, *Strain fluctuations from DIC technique applied on paper under fatigue or creep*, Procedia Engineering **10**, 2678 (2011).
15. A. Miksic, J. Koivisto, E. Mykkänen, J. Saarenpää, M. Alava, K. Mustonen, P. Karppinen, T. Karppinen, and E. Hægström, *Deformation, acoustic emission and ultrasound velocity during fatigue tests on paper*, EPJ Web Conferences **6**, 42016 (2010).
16. J. Koivisto, J. Lehtinen, J. Rosti, and M. Alava, *Digital Image Correlation and Acoustic Emission Studies of Creep Fracture*, Proceedings of 12th International Conference on Fracture, Ottawa (2009).

D Publications intended for professional communities

17. J. Rosti, J. Koivisto, and M. J. Alava, *Paper Stretches Unevenly*, Physical Review Focus **26**, 9 (2010).

G Theses

18. J. Koivisto, *Fracture propagation and prediction in heterogeneous materials*, PhD Thesis, Aalto University (2013).
19. J. Koivisto, *Fracture of fibrous materials*, MSc Thesis, Helsinki University of Technology (2007).

I Audiovisual material, ICT software

20. J.Aro, *Ylioppilaskoe hakkerointiin omaperäisillä keinoilla - koe sabotoitiin morsettamalla äänikortilta*, media coverage on my solution to Finnish matricular examination hacking contest, Yle uutiset 8.10.2013.
21. J. Koivisto, J. Rosti, S. Tuomisto, S. Seppälä, A. Miksic, and M. Alava, *ST Digital Image Correlation software*, <https://github.com/jhkoivis/stdic> (2012).
22. J. Koivisto, J. Rosti, M. Myntti, S. Seppälä, and M. Alava, *Lumikki measurement environment*, <https://github.com/jhkoivis/lumikki> (2012).
23. *Paperi repeää tasaisessa vedossa epätasaisesti*, media coverage for Rosti et al. PRL **105**, 100601 (2010), Yle 15.09.2010.