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On the geometry of fracture and frustration

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CURRICULUM VITAE

I was born on 4 March 1988 in Lisserbroek. After graduating from Het Rijnlands Lyceum Sassenheim, I started my BSc studies in Physics in Leiden at the age of seventeen. I obtained my degree three years later in 2008. Besides the regular courses I completed an interdisciplinary honours programme on solar biofuels. I spent half a year on experimental and computational research on light harvesting complexes in photosynthetic bacteria under the guidance of prof. dr. S. Völker and the late prof. dr. R. Silbey (MIT).

In the next two years, I concentrated on theoretical physics. This included a one-year research project on liquid crystal emulsions at the Instituut Lorentz with dr. Vitelli and in close collaboration with the experimental group of prof. dr. A. Fernandez-Nieves at the Georgia Institute of Technology. In 2010, I obtained my MSc degree in physics cum laude, also from Leiden University.

In November 2010, I continued working with dr. Vitelli as a PhD researcher. A large part of the results are collected in this thesis. I stayed twice at the University of Chicago (in March 2011 and August 2013) as part of a collaboration with prof. dr. W. T. M. Irvine. I have presented my work on fourteen occasions at national and international conferences, schools and seminars in France (Les Houches), England (Cambridge), Belgium (Leuven), Portugal (Lisbon), the USA (Chicago, Dallas, Biddeford) and the Netherlands. At FYSICA 2014, the annual conference of the Nederlandse Natuurkundige Vereniging, I was elected as best plenary young speaker by an audience of over 500 people. In this year, I also won the Belgian equivalent of this young speaker contest.

Throughout my PhD and MSc studies I have assisted in teaching the courses Statistical physics (fall 2011, 2012 and 2013), Quantum Mechanics II (spring 2010 and 2011), Klassieke mechanica II (fall 2009), Klassieke mechanica I (spring 2009) and Wiskunde Aansluiting (fall 2008). During my BSc studies I have also been employed as a tutor to a group of first-year students in the academic years 2006-2007 and 2007-2008.

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- **V. Koning**
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Submitted

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I thank my colleagues in the Instituut Lorentz, in particular the fellow group members, the members of my indoor football team and the secretary; you created a pleasant environment to work in. My friends, mijn broertje Jesper en mijn zusje Iris, thank you all for providing the distractions that are necessary to complete a thesis. Nico, dank voor je gezelschap tijdens onze talrijke pauzes die we sinds ons gezamenlijke bachelor-onderzoek gehouden hebben. Jesper, we delen dezelfde voorkeur in sport, muziek en zelfs wetenschap, en hebben zoveel dingen samen gedaan. Dank je voor je

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