

Cover Page



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# Curriculum vitae

I was born on January 13, 1987 in Leidschendam, in the province of Zuid-Holland, and grew up in Voorburg, a town famous for its Roman roots and for ‘Hofwijck’, the country house of the Huygens family. I attended Basisschool de Lusthof together with my brother and sister, and started my high school education at the nearby Huygenslyceum in 1998.

After graduating high school in 2005, I decided to move to the Dutch capital and start the Bachelor of Physics at the University of Amsterdam, from which I graduated with honors early 2009. Enjoying life in Amsterdam, I subsequently started the Master of Astronomy and Astrophysics at the UvA. During these years, I was drawn towards the ‘low-energy’ part of the curriculum, and particularly enjoyed the courses on the solar system, planet formation, and the interstellar medium. In the second year of the Master, I started a research project with Prof. dr. Carsten Dominik studying the effect of migrating planets on populations of asteroids. During this project, which resulted in my first scientific publication (Krijt & Dominik 2011), I realized how much I liked doing research, and I was delighted when I got the opportunity to start a PhD at Leiden Observatory under the supervision of Prof. dr. Xander Tielens and Prof. dr. Carsten Dominik in January 2011.

I spent the first half of my PhD examining the adhesive contact between microscopic grains, after which I applied this knowledge to study dust coagulation in planet-forming regions. In addition, I was a teaching assistant for ‘Praktische Sterrenkunde’ and ‘Sterrenkunde Practicum 2’ by Prof. dr. Snellen and Dr. Hoekstra. During my PhD, I presented the results of this thesis at international conferences in the Netherlands, Sweden, and Germany, and during visits to several universities in the United States.



# List of publications

## First-author articles

1. **S. Krijt**, C. W. Ormel, C. Dominik, and A. G. G. M. Tielens  
*A panoptic model for planetesimal formation*  
Astronomy & Astrophysics, to be submitted
2. **S. Krijt**, C. W. Ormel, C. Dominik, and A. G. G. M. Tielens  
*Erosion and the limits to planetesimal growth*  
Astronomy & Astrophysics, Volume 574, A83 (2015)
3. **S. Krijt** and M. Kama  
*A dearth of small particles in debris disks:  
An energy-constrained smallest fragment size*  
Astronomy & Astrophysics, Volume 566, L2 (2014)
4. **S. Krijt**, C. Dominik, and A. G. G. M. Tielens  
*Rolling friction of adhesive microspheres*  
Journal of Physics D: Applied Physics, Volume 47, Issue 17 (2014)
5. **S. Krijt**, C. Güttler, D. Heißelmann, C. Dominik, and A. G. G. M. Tielens  
*Energy dissipation in head-on collisions of spheres*  
Journal of Physics D: Applied Physics, Volume 46, Issue 43 (2013)
6. **S. Krijt** and C. Dominik  
*Stirring up the dust: A dynamical model for halo-like dust clouds in transitional disks*  
Astronomy & Astrophysics, Volume 531, A80 (2011)

## Co-authored articles

7. B. B. Ochsendorf, N. J. L. Cox, **S. Krijt**, F. Salgado, O. Berné, J. P. Bernard, L. Kaper, and A. G. G. M. Tielens  
*Blowing in the wind: The dust wave around  $\sigma$  Ori AB*  
Astronomy & Astrophysics, Volume 563, A65 (2014)
8. A. Seizinger, **S. Krijt**, and W. Kley  
*Erosion of dust aggregates*  
Astronomy & Astrophysics, Volume 560, A45 (2013)
9. C. Güttler, D. Heißelmann, J. Blum, and **S. Krijt**  
*Normal Collisions of Spheres: A Literature Survey on Available Experiments*  
arXiv:1204.0001 (2012)