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Predicting the future: Predictive control for astronomical adaptive optics

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Predicting the Future
***Predictive Control for Astronomical
Adaptive Optics***

Maaïke A. M. van Kooten

Front cover design was made from simulated phase screen of full atmospheric turbulence and a residual phase screen using predictive control. I enjoy watercolor painting as a hobby and used a watercolor effect to create the final cover design.

Predicting the Future

Predictive Control for Astronomical Adaptive Optics

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*To my husband for his limitless
support and dedication.*

“It’s a dangerous business, going out
your door. You step onto the road,
and if you don’t keep your feet,
there’s no knowing where you might
be swept off to”.

J.R.R. Tolkien,
The Fellowship of the Ring

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“For the Quest is achieved, and now
all is over. I am glad you are here
with me. Here at the end of all
things”

J.R.R. Tolkien, *The Return of the King*

At the end of a PhD I can now proudly declare that I am an independent researcher ready to head out into academia and make contributions to my field. Yet, I am most definitely not a self-standing researcher, but rely on my peers, colleagues, friends, and family to not only support me but to inspire me. Without the people around me, my work would not only be impossible, but also not as much fun.

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