

# Toon Huysmans

*Research Manager  
Post-doc Researcher*

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## Career

- 2014–present **Research Manager**, *iMinds-Vision Lab, Department of Physics, University of Antwerp, Wilrijk, Belgium.*  
Further developing Vision Lab's research on statistical shape modelling, focussing on grant writing, guiding of PhD students, and networking with industry.
- 2009–present **Post-Doctoral Researcher**, *Vision Lab, Department of Physics, University of Antwerp, Wilrijk, Belgium.*  
Focus on valorization of statistical shape modeling techniques developed at the Vision Lab, in e.g. in virtual colonoscopy. orthopedic implants, and ergonomics.
- 2003–2009 **Doctoral Researcher**, *Vision Lab, Department of Physics, University of Antwerp, Wilrijk, Belgium.*  
Research and development of image and geometry processing algorithms for biomedical applications.

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## Education

- 2004–2009 **Doctor of Science**, *Department of Computer Science and Mathematics, University of Antwerp, Wilrijk.*  
Thesis *Parameterization and Correspondence for Improved Modelling, Analysis, and Visualization of Tubular Surfaces.*
- 2001–2003 **Master in Computer Sciences**, *Department of Computer Science and Mathematics, University of Antwerp, Wilrijk, Great distinction.*
- 1999–2001 **Bachelor in Computer Sciences**, *Department of Computer Science and Mathematics, University of Antwerp, Wilrijk, Distinction.*

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## Selected Projects

- 2015–2019 **Building an Articulating 3D Shape Model for an Improved Seating Comfort**, *Post-graduate Grant from Institute for the Promotion of Innovation by Science and Technology in Flanders, Brussels, Belgium.*
- 2014–2016 **CADANS: A CAD platform for 3D Statistical anthropometric Design**, *TETRA project from Institute for the Promotion of Innovation by Science and Technology in Flanders, Brussels, Belgium.*
- 2013–2014 **Accelerated Calculations for Space Applications**, *Contract research for Antwerp Space, Thales France, and Centre National d'Etudes Spatiales, Hoboken, Belgium.*
- 2011–2012 **Statistical Ear Shape Modelling**, *Contract research for Philips, Leuven, Belgium.*

- 2010–2011 **Accelerating Cylindrical Parameterization for Virtual Colon Dissection**, *Proof of Concept Grant from the Industrial Research Fund, University of Antwerp, Wilrijk, Belgium.*
- 2004–2007 **Characterization of 3D-form**, *Post-graduate Grant from Institute for the Promotion of Innovation by Science and Technology in Flanders, Brussels, Belgium.*

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## Selected Publications

### Articles

- [1] Amit Bernat, Toon Huysmans, Francis van Glabbeek, Jan Sijbers, Jan Gielen, and Alexander Van Tongel. The anatomy of the clavicle: A three-dimensional cadaveric study. *Clinical anatomy*, 27:712–723, 2014.
- [2] Toon Huysmans, Jan Sijbers, and B. Verdonk. Parameterization of tubular surfaces on the cylinder. *Journal of the Winter School of Computer Graphics*, 13(3):97–104, 2005.
- [3] Toon Huysmans, Jan Sijbers, and B. Verdonk. Automatic construction of correspondences for tubular surfaces. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 32(4):636–651, 2010.
- [4] Daniel Lacko, Toon Huysmans, Paul M. Parizel, Guido De Bruyne, Stijn Verwulgen, Marc M. Van Hulle, and Jan Sijbers. Evaluation of an anthropometric shape model of the human scalp. *Applied Ergonomics*, 48:pp. 70–85, 2015.
- [5] L. Serbruyns, I. Leunissen, Toon Huysmans, K. Cuypers, R. L. Meesen, P. van Ruitenbeek, Jan Sijbers, and S. P. Swinnen. Subcortical volumetric changes across the adult lifespan: subregional thalamic atrophy accounts for age-related sensorimotor performance declines. *Cortex*, 65:128–138, 2015.
- [6] Alexander Van Tongel, Toon Huysmans, Amit Bernat, Iwein Piepers, Jan Sijbers, Francis van Glabbeek, and Lieven De Wilde. Evaluation of prominence of straight plates and precontoured clavicle plates using automated plate-to-bone fitting. *Acta Orthopaedica Belgica*, 80:301–308, 2014.

### Patents

- [7] Toon Huysmans and Jan Sijbers. Method for mapping tubular surfaces to a cylinder. (PCT/EP2010/057882), 12/2010 2010.

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## Updated

March 9, 2015