

University of Groningen

Clinical translation of laser speckle contrast imaging

Heeman, Wido

DOI:
[10.33612/diss.256850700](https://doi.org/10.33612/diss.256850700)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2022

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):
Heeman, W. (2022). *Clinical translation of laser speckle contrast imaging*. [Thesis fully internal (DIV), University of Groningen]. University of Groningen. <https://doi.org/10.33612/diss.256850700>

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Clinical translation of laser speckle contrast imaging

1. Laser speckle contrast imaging provides intraoperative real-time, instantaneous, continuous and dye free tissue perfusion imaging, thereby aiding in better substantiated clinical decision making. *This thesis*
2. Clinical acceptance of optical imaging techniques require standardized and reproducible clinical data based on a scientifically robust imaging approach that relies on the cornerstones of science: standardization and reproducibility. *This thesis*
3. Resilience to movement artefacts and quantification are the main challenges for the clinical acceptance of laser speckle contrast imaging. *This thesis*
4. Laser speckle contrast imaging can detect changes in subsurface tissue perfusion with high spatial and temporal resolution. *This thesis*
5. The proposed real-time, multi-spectral motion correction and compensation model based on optical flow, leads to notably better perfusion estimation and paves the way to a multitude of new clinical applications. *This thesis*
6. Laparoscopic laser speckle contrast imaging allows for the assessment of local intestinal perfusion during minimally invasive surgery without the need for a contrast agent. *This thesis*
7. The use of laparoscopic laser speckle contrast imaging was associated with the intend to change the location of anastomosis in a significant percentage of surgical procedures. *This thesis*
8. Handelen naar omstandigheden. *J.W. Floor*
9. Haast je wanneer je tijd hebt, dan heb je tijd wanneer je haast hebt. *Volkswijsheid*
10. It's nice to be important, but it's more important to be nice. *Scooter*