

CURRICULUM VITAE

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Name:

Joni Ari Tapio Orava

Personal information:

- Born September 21st, 1977 in Kuusankoski, Finland
- Married, two children

Contact information:

- Work address:
 - University of Eastern Finland
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Education

- Master of Science, Physics, University of Joensuu 2001
- Doctor of Philosophy, Physics, University of Joensuu 2009

Knowledge of languages

- Finnish, native
- English, fluent
- Swedish, satisfactory
- German, basics
- Russian, basics

Main occupations

- 2001: Trainee, University of Joensuu, Department of Physics
- 2002-2003: Researcher, University of Joensuu, Department of Physics
 - Post graduate research in color research group
- 2003-2009: Project Engineer, Nanocomp Oy Ltd
 - Wave-optical engineering, optical designing, manufacturing of micro-optical components (e-beam and laser lithography, tooling and replication processes)
- 2008-2009: Part-time Researcher, University of Joensuu, Department of Physics
- 2009-: Project researcher, University of Eastern Finland, School of Computing
 - Optics-related research mainly in the field of medical imaging and project managing for different projects

Scientific merits:

- Dissertation: *Modern color reproduction methods*, University of Joensuu, 2009
- 7 refereed articles in scientific journals
- 5 conference proceedings papers

Teaching/supervising

- 4 supervised Master Theses (Physics and Computer Science)

Research interests:

- Color science
- Spectroscopy
- Medical imaging
- Optics
- Wave optics

Hobbies:

- Renovation of old cars and motorcycles
- Guitar playing
- Reading
- History

LIST OF PUBLICATIONS

Dissertation

- [1] J. Orava, *Modern color reproduction methods*, University of Joensuu, 2009, 47 p.

Articles in scientific journals with a referee practice

- [2] J. Orava, T. Jaaskelainen and J. Parkkinen, "Color errors of digital cameras," *Color Research and Application* **29**, 217-221 (2004).
- [3] N. Tossavainen, J. Orava, P. Laakkonen, M. Kuittinen and T. Jaaskelainen, "Additive colour mixing by surface relief gratings utilizing the power spectrum of a fluorescent lamp," *Journal of Modern Optics* **53**, 1577-1587 (2006).
- [4] J. Orava, T. Jääskeläinen, J. Parkkinen and V-P. Leppänen, "Diffractive CIE 1931 chromaticity diagram," *Color Research and Application* **32**, 409-413 (2007).
- [5] J. Orava, N. Heikkilä, T. Jaaskelainen and J. Parkkinen, "Diffractive parameric colors", *Journal of the Optical Society of America A* **25**, 2901-2907 (2008).
- [6] J. Orava, T. Jaaskelainen and J. Parkkinen, "Large gamut backlight for an LCD with four primaries", *Journal of Display Technology* **6**, 170-177 (2010).
- [7] J. Antikainen, M. von und zu Fraunberg, J. Orava, J. E. Jääskeläinen and M. Hauta-Kasari, "Spectral Imaging of Neurosurgical Target Tissues Through Operation Microscope", *Optical Review*, **18**, 458-461 (2011).
- [8] J. Orava, J. Parkkinen, M. Hauta-Kasari, P. Hyvonen, Atte von Wright, "Temporal clustering of minced meat by RGB- and spectral imaging", *Journal of Food Engineering*, (2012)

Articles in scientific conference proceedings

- [9] J. Orava, T. Jaaskelainen, J. Parkkinen, "Color Differences in a Spectral Space, " *Proc. of the PICS Conference. USA: The Society for Imaging Science and technology*, 205-209 (2003)
- [10] N. Tossavainen, J. Orava, M. Kuittinen, P. Laakkonen, T. Jääskeläinen, " Additive diffractive colors," *Optics Days - Optiikan päivät Proceedings* (2004)
- [11] P. Laakkonen, J. Turunen, J. Pietarinen, S. Siitonen, J. Laukkanen, K. Jefimovs, J. Orava, M. Ritala, T. Pilvi, H. Tuovinen, K. Ventola, M. Kaipainen and M. Kuittinen, " Diffractive Optics in

Industry and Research - Novel Components for Optical Security Systems,” *Proc. of SPIE: Optical Security Systems* **5954** (2005)

[12] J. Orava, J. Parkkinen, M. Hauta-Kasari, P. Hyvonen and A. von Wright, ”Meat Evaluation by RGB-to-spectrum Imaging”, *Proc. of Scandinavian Workshop on Imaging Food Quality, IMM-Technical Report 2011-15* (2011)

[13] A. Hasnat, J. Parkkinen, M. Hauta-Kasari, J. Antikainen, J. Orava, M. von und zu Fraunberg, J. E. Jääskeläinen, ”Spectral color reconstruction and target visualization of live tissue”, *Proc. of Scandinavian Workshop on Imaging Food Quality, IMM-Technical Report 2011-15* (2011)