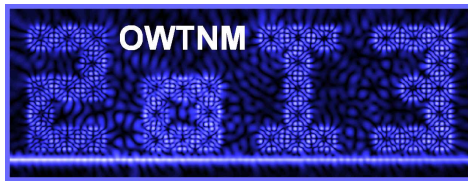




OWTNM

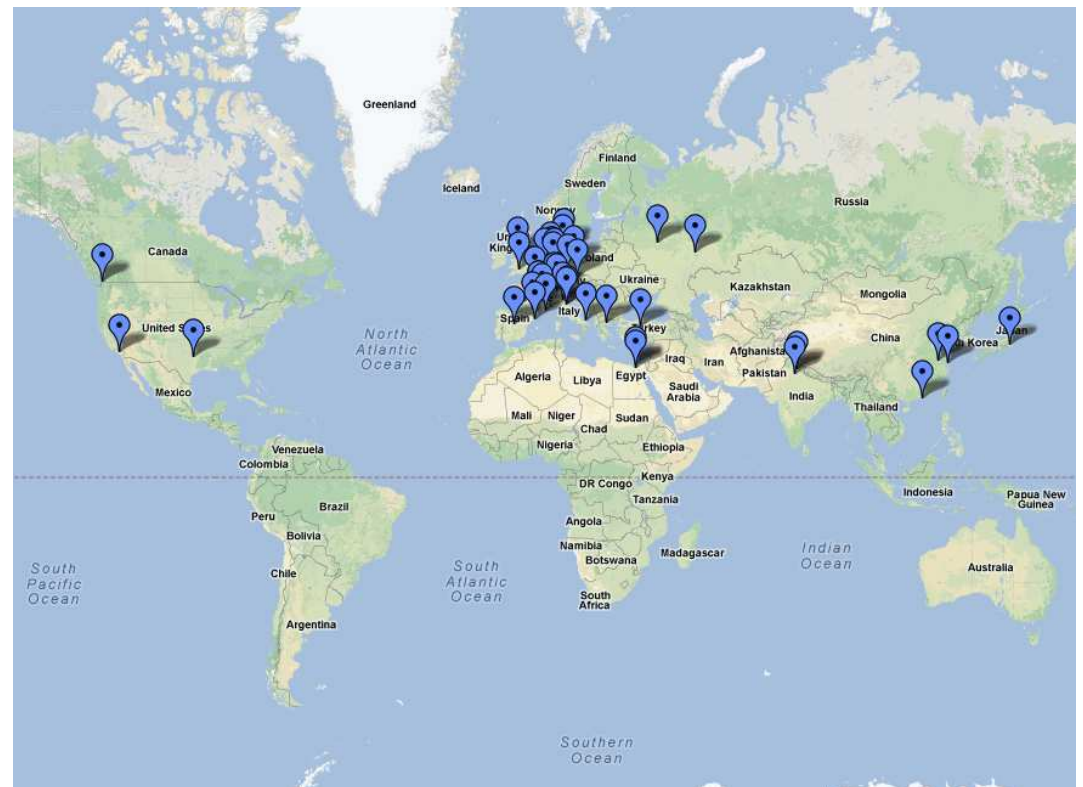
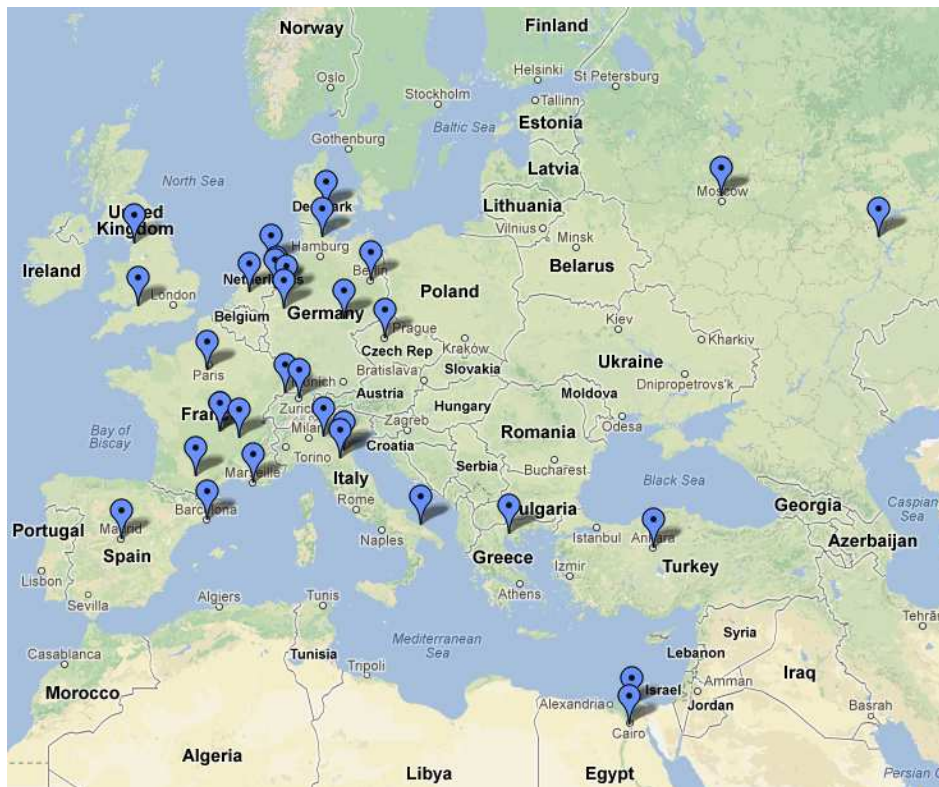
**XXI International Workshop on
Optical Wave & Waveguide Theory and Numerical Modelling**

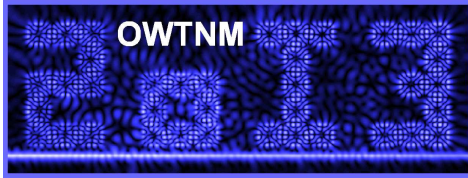
Enschede, The Netherlands, April 19–20, 2013



XXI International Workshop on Optical Wave & Waveguide Theory and Numerical Modelling

≈ 65 participants:

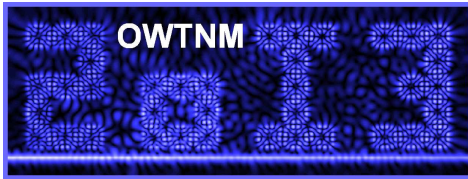




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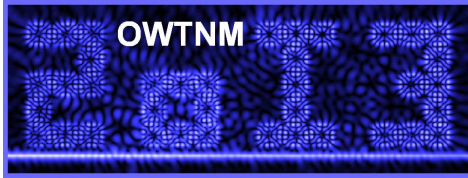
≈ 65 participants:

- 14% female, 86% male,
- 28% student, 72% regular registrations,
- 90% academia / institutions, 10% commercial affiliation.



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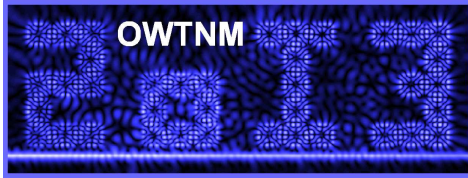




XXI International Workshop on Optical Wave & Waveguide Theory and Numerical Modelling

Technical program:

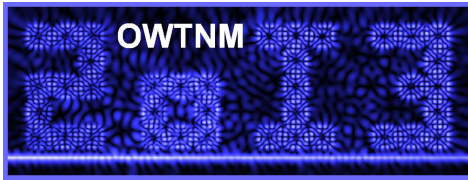
- 56 scientific presentations,
- 8 oral sessions, 1 poster session.
- 10 h talks, 2 h posters,
- 4 h of coffee & lunch breaks (+ workshop dinner).



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Last-minute changes:

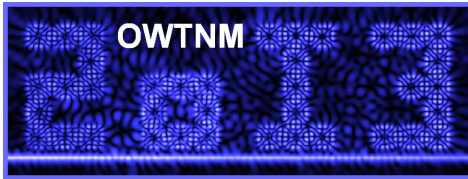
- Poster P-13 cancelled.
- Talk O-2.4 cancelled.
- Three postdeadline posters.



XXI International Workshop on Optical Wave & Waveguide Theory and Numerical Modelling

Technicalities:

- **Posters:**
on display Friday, 8:30 – Saturday, 16:00,
- **Oral presentations:**
upload in advance (check), contact chairs,
15 min / 30 min *including discussion*.
- **Online version:**
please contact Milan Maksimovic.

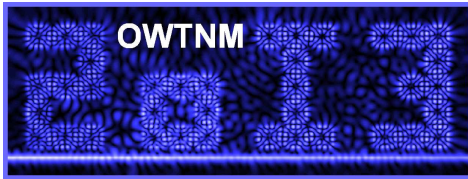


Friday, 09:00–10:15, Methods & algorithms I



- 09:00 P.A. Postigo (invited),
Three-dimensional finite-difference time-domain (3D-FDTD) methods for photonic crystal lasers, solar cells and quantum nanophotonics
- 09:30 M. Maksimovic,
Resonances in high-contrast gratings with complex unit cell topology
- 09:45 D.D. El-Mosalmy, M. Farhat, O. Hameed, N.F.F. Areed, S.S.A. Obayya,
Radial basis function neural network based optimization approach for photonic devices
- 10:00 C. Kluge, L.T. Neustock, J. Adam, M. Gerken,
Calculation of leaky-wave radiation from compound binary grating waveguides

(Chair: R. Stoffer)

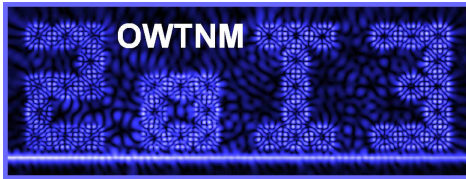


Friday, 10:45 - 12:00, Active structures



- 10:45 M. Pollnau, M. Eichhorn (invited),
Theory of lasing resonators: Quality factor and line width
- 11:15 A. Liu, J. Pond,
Nonlinear and gain simulation in waveguide systems: methods and applications
- 11:30 S. Malaguti, G. Bellanca, A. Bazin, F. Raineri, R. Raj, S. Trillo,
Hybrid III-V semiconductor/silicon three-port Filter on 1D-PhC wire
- 11:45 J. Ctyroky,
Full-vector analysis of photonic structures with a balance of loss and gain (cancelled)

(Chair: D. Gallagher)

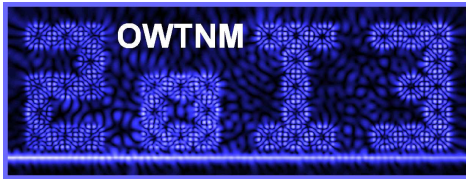


Friday, 13:00 - 14:15, Functional devices



- 13:00 T. Mizumoto, Y. Shoji (invited),
Magneto-optical nonreciprocal devices on silicon
- 13:30 M. Farhat, O. Hameed, A.M. Heikal, S.S.A. Obayya,
Passive polarization rotator based on spiral photonic crystal fiber
- 13:45 B.B. Oner, M. Turduev, I.H. Giden, H. Kurt,
Enhancing light manipulation by graded index photonic crystal media
- 14:00 A.-L. Fehrembach, K. Chan Shin Yu, A. Monmayrant, O. Gauthier-Lafaye, P. Arguel, A. Sentenac,
1D crossed guided mode resonant gratings for tunable filtering

(Chair: C. Waechter)

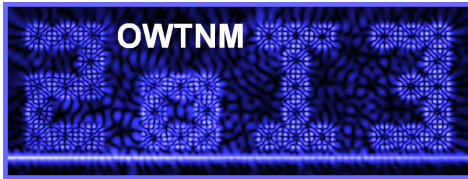


Friday, 14:45 - 16:00, Nanophotonics



- 14:45 J. Knoester (invited),
Collective optical excitations in self-assembled molecular nanotubes for light-harvesting
- 15:15 V. Grigoriev, A. Tahri, S. Varault, B. Rolly, B. Stout, J. Wenger, N. Bonod,
Decomposition of Mie scattering coefficients and polarizabilities of nanoshell structures into Lorentzian resonances
- 15:35 S. She, Y.Y. Lu,
Extraordinary optical transmission through circular metallic cylinder arrays
- 15:45 D. Ketzaki, O. Tsilipakos, T.V. Yioultsis, E.E. Kriezis,
Electromagnetically induced transparency with hybrid silicon-plasmonic traveling-wave resonators

(Chair: O. Parriaux)



Friday, 16:00 - 18:00, Poster session

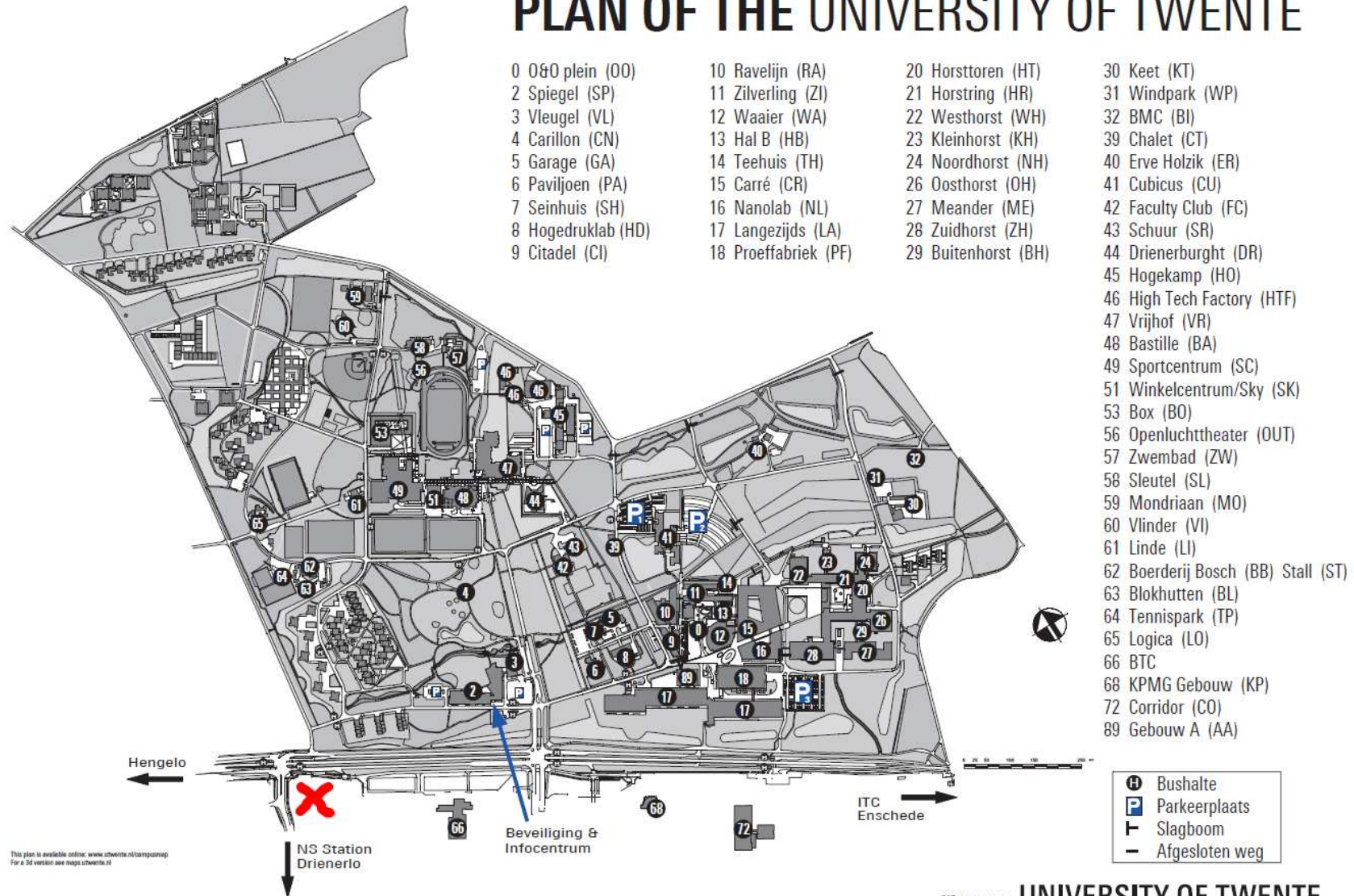


— *On the gallery upstairs. Drinks available !* —

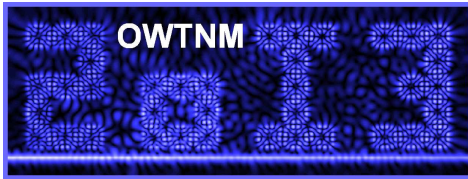


Workshop dinner: All OWTNM-participants are cordially invited to the restaurant of the Hotel De Broeierd at **19:00**.

PLAN OF THE UNIVERSITY OF TWENTE



Departure: **18:40**, canopy / red benches in front of this building.



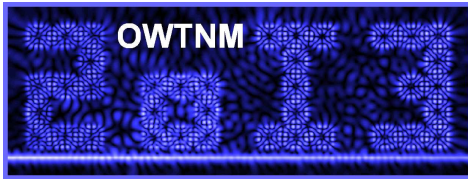
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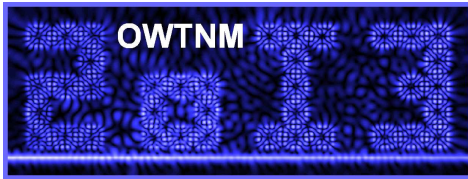


Saturday, 09:00 - 10:15, Methods & algorithms II

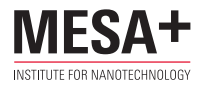


- 09:00 K. Busch (invited),
Discontinuous Galerkin methods in nano-photonics
- 09:30 A.A. Shcherbakov, A.V. Tishchenko,
Generalized source method in curvilinear coordinates
- 09:45 K. Gehlot, A. Sharma,
Modified optimal variational method to study modal characteristics of Si photonic wire waveguides
- 10:00 M. Blome, K. McPeak, S. Burger, F. Schmidt,
Back-reflector optimization in thin-film silicon solar cells by rigorous FEM light propagation modeling

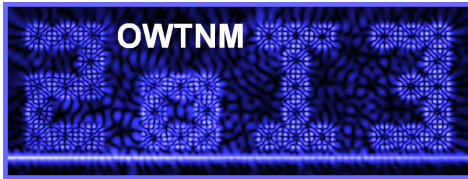
(Chair: I. Richter)



Saturday, 10:15



Group photo!



Saturday, 10:45, Metamaterials & nanostructures



10:45 F. Lederer, S. Muhlig, C. Rockstuhl, R. Alaei, C. Menzel
(invited),

Tailoring meta-atoms for specific metamaterial applications

11:15 J. Benedicto, E. Centeno, A. Moreau,

Lens equation for flat lenses made with hyperbolic metamaterials

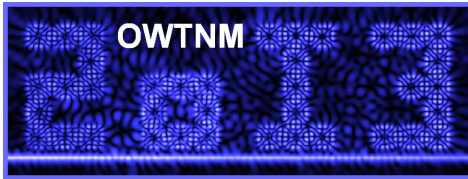
11:30 S. Bin Hasan, C. Etrich, R. Filter, C. Rockstuhl, F. Lederer,

Tailoring the quadratic response of nanoantennas: use of a waveguide model

11:45 P.J. Compaijen, V.A. Malyshev, J. Knoester,

Transmission of optical excitations through a linear chain of metal nanoparticles in the presence of a reflector

(Chair: M. Maksimovic)



Saturday, 13:00 - 14:15, Physical phenomena

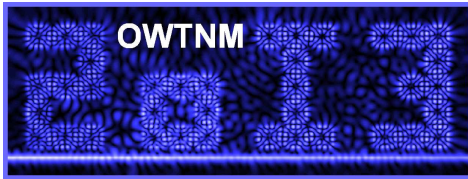


13:00 P. Shadbolt, J.L. O'Brien & collaborators (invited),
Integrated quantum photonics

13:30 W.L. Vos (invited),
Looking in and through opaque material

14:00 A.V. Tishchenko, O. Parriaux,
*Intriguing relations between “pseudo-Brewster incidence”
and the plasmon mode at a metal surface*

(Chair: H.J.W.M. Hoekstra)

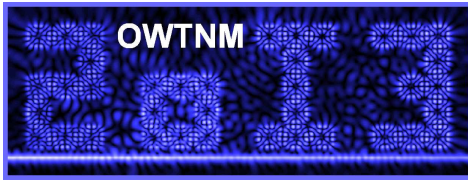


Saturday, 14:45 - 16:00, Plasmonics



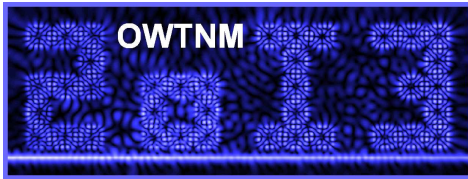
- 14:45 Z. Han, S.I. Bozhevolnyi (invited),
Modelling of plasmonic waveguides
- 15:15 W. Walasik, Y. Kartashov, G. Renversez,
Plasmon-soliton waves: towards realistic modelling
- 15:30 P. Kwiecien, J. Ctyroky, I. Richter,
*Hybrid dielectric plasmonic slot guiding nanostructures —
analysis with Fourier modal methods*
- 15:45 A. Alparslan, Ch. Hafner,
*Analysis of layered media plasmonic waveguides by
Multiple Multipole Program*

(Chair: S. Garcia-Blanco)

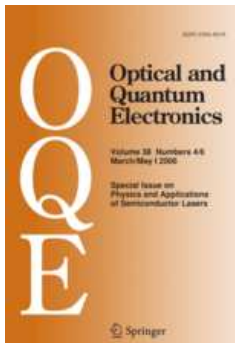


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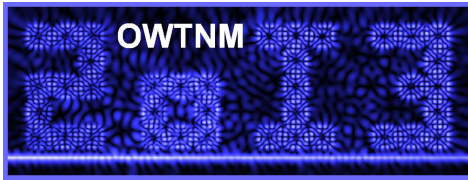
Thanks!



XXI International Workshop on Optical Wave & Waveguide Theory and Numerical Modelling



Special Issue of *Optical and Quantum Electronics*,
submission deadline: **July 1, 2013.**



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OWTNM 2014