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Interference effects with surface plasmons

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Curriculum Vitae

Nikolay Victorovich Kuzmin

Born on the 28th of January 1980 in the city of Troitsk, Moscow region, Russia, I completed my secondary education in 1997 (Troitsk lyceum) and entered the Physics Faculty of Moscow State University (MSU). After acquiring the bachelor degree, I entered the Optics and Spectroscopy department of the MSU and started my Master project on the optical properties of novel nonlinear crystals for the near infrared range. My Master research has been carried out at the Institute of Spectroscopy of the Russian Academy of Sciences (Troitsk) under supervision of Prof. E.A. Ryabov and Dr. V.B. Laptev.

Starting February 2003, I joined the Quantum Optics and Quantum Information Group at Leiden University (The Netherlands) for a PhD project directed by Prof. G.W.'t Hooft and Dr. E.R. Eliel. I presented some of the results of the project both at the annual conferences in Lunteren and Veldhoven (The Netherlands) and at the international conference in Graz ("Surface Plasmon Photonics 2", Austria, 2005) and Keene (Gordon Research Conference on Plasmonics, NH, USA, 2006). During my stay at Leiden University I taught the lab classes of the LabVIEW course for the second-year bachelor students.

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I am deeply grateful to my parents and my family members for their love and support, and I want to thank my friends and neighbors for the chats and fun we had together.

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List of publications

- V.V. Badikov, N.V. Kuzmin, V.B. Laptev, A.L. Malinovsky, K.V. Mitin, G.S. Nazarov, E.A. Ryabov, A.M. Seryogin and N.I. Schebetova, *A study of the optical and thermal properties of nonlinear mercury thiogallate crystals*, Quantum Electronics, **34**, p. 451 (2004).
- H.F. Schouten, N.V. Kuzmin, G. Dubois, T.D. Visser, G. Gbur, P.F.A. Alkemade, H. Blok, G.W. 't Hooft, D. Lenstra and E.R. Eliel, *Plasmon-assisted two-slit transmission: Young's experiment revisited*, Phys. Rev. Lett., **94**, p. 053901 (2005).
- N.V. Kuzmin, H.F. Schouten, G. Gbur, G.W. 't Hooft, E.R. Eliel and T.D. Visser, *Enhancement of spatial coherence by surface plasmons*, Opt. Lett., **32**, p. 445 (2007).
- N.V. Kuzmin, P.F.A. Alkemade, G.W. 't Hooft and E.R. Eliel, *Bouncing surface plasmons*, Opt. Express **15**, p. 13757 (2007).
- N.V. Kuzmin, P.F.A. Alkemade, G.W. 't Hooft and E.R. Eliel, *Phase factors in light-plasmon scattering*, in preparation.
- N.V. Kuzmin, G.W. 't Hooft and E.R. Eliel, *Sub-wavelength slit as a quarter-wave plate*, in preparation.
- N.V. Kuzmin, O.T.A. Janssen, P.F.A. Alkemade, H.P. Urbach, G.W. 't Hooft and E.R. Eliel, *Retardation effects in sub-wavelength slits in thin metal films near cut-off*, in preparation.
- N.V. Kuzmin, A.L. Tchegotareva, J.J. Renema, B.J.G. van der Meer, P.F.A. Alkemade, G.W. 't Hooft and E.R. Eliel, *Short-wavelength surface plasmons*, in preparation.

