

**38 joint publications** (see list of references) in high-level international journals have been prepared by Nanosil members, among which 30 articles are already published and 5 are accepted for publication in 2009. Some (14) are already clearly linked to Nanosil's first year, whereas most are still obviously the outcome of previous projects such as Sinano NoE. We in purpose mention here only the number of joint publications to emphasize the value of networking, while surely this number will be much greater if we will take into account all single-partner publications. Furthermore, **82 conference/workshop presentations** (see list of references) are given (and 5 more accepted) by Nanosil partners, among which **28 are invited presentations**.

## References

### Publications (only joint)

Title	Authors	Nanosil partners	WP(s)	References (journal/conference/book; vol., No., pp.)	Status (published/accepted/submitted)	Acknowledgment Nanosil (yes/no/Sinano)
The growth of small diameter silicon nanowires to nanotrees	P Gentile, T David, F Dhalluin, D Buttard, N Pauc, M Den Hertog, P Ferret and T Baron	FMNT-LTM, CEA	2.4	Nanotechnology 19 (2008) 125608	Published	
Monte Carlo study of apparent magnetoresistance mobility in nanometer scale metal oxide semiconductor field effect transistors	K. Huet, D. Querlioz, W. Chaisantikulwat, J. Saint-Martin, A. Bournel, M. Mpuis, P. Dollfus	UPS, INPG-IMEP	4.3	Journal of Applied Physics, vol.104, no.4, pp. 044504-1-7. (15 Aug. 2008)	Published	Yes
Monte-Carlo simulation of MOSFETs with band-offsets in the source and drain	M. Braccioli, P. Palestri, M. Mouis, T. Poiroux, M. Vinet, G. Le Carval, C. Fiegna, E. Sangiorgi, S. Deleonibus	IUNET, INPG-IMEP, CEA-LETI	4.3	Solid-State Electronics, Vol. 52, pp. 506-513	Published	SINANO
Extraction of $\eta$ parameter characterizing $\mu_{eff}$ vs $E_{eff}$ curves in strained Si nMOS devices.	K. Bennamane, M. DeMichielis, G. Ghibaudo, D. Esseni	INPG-IMEP, IUNET	4.3	Electronics Letters, 44, 1219 (2008)	Published	Yes
A capacitor-less 1T-DRAM on SOI based on double gate operation.	M. Bawedin, S. Cristoloveanu, D. Flandre	INPG-IMEP, UCL	1	IEEE Electron Device Letters, Vol. 29, n°7, 795-798 (2008)	Published	No
The Quantization Impact of Accumulated Carriers in Silicide-Gated MOSFETs	N. Rodriguez, F. Gámiz, L. Donetti, R. Clerc, G. Ghibaudo, S. Cristoloveanu	INPG-IMEP, URV-UGR	4.3	IEEE Electron Device Letters, Vol. 29, p. 628-631 (June 2008)	Published	No
<a href="#">On the Electron Mobility Enhancement in biaxially strained Si MOSFETs</a>	F.Driussi, D.Esseni, L.Selmi, P.-E.Hellström, G.Malm, J.Hallstedt, M.Östling, T.J.Grasby, D.R.Leadley and X.Mescot	Udine, KTH, Warwick	1	Solid State Electronics 52 498-505 (2008)	Published	SINANO
<a href="#">High-frequency performance of Schottky Source/Drain</a>	J.-P.Raskin, D.J.Pearman, G.Paillancy,	UCL, Warwick	1, 3 & 4	IEEE Electronic Device Letters	Published	No

<a href="#">Silicon pMOS devices</a>	J.M.Larson, J.Snyder, D.R.Leadley and T. E. Whall			29, 396-398 (2008)		
Silicon-based nanostructures and nanodevices for long-term nanoelectronics applications	F. Balestra, E. Parker, D. Leadley, S. Mantl, E. Dubois, O. Engstrom, R. Clerc, S. Cristoloveanu, H. Kurz, J.P. Raskin, M. Lemme, A. Ionescu, K.E. Moselund, K. Boucart, E. Kasper, A. Karmous, M. Baus, B. Spangenberg, M. Ostling, E. Sangiorgi, G. Ghibaudo, D. Flandre	ALL	ALL	Materials Science in Semiconductor Processing	In press	Yes
Fabrication and characterisation of strained Si heterojunction bipolar transistors on virtual substrates	S. Persson, M. Fjer, E. Escobedo-Cousin, G. Malm, Y.-B. Wang, P.-E. Hellström, M. Östling, E.H.C. Parker, L.J. Nash, P. Majhi, S.H. Olsen, A.G. O'Neill	Newcastle University  KTH	1 and 3	International Electron Device Meeting (IEDM) 2008 pp735-738	Published	Yes
Carrier mobility in undoped triple-gate FinFET structures and limitations of its description in terms of top and sidewall channel mobilities	T. Rudenko, V. Kilchytska, N. Collaert, M. Jurczak, A. Nazarov, D. Flandre,	UCL, IMEC	4	IEEE Trans. on Electron Devices, vol. 55, No. 12, 2008, p. 3532-3541.	published	YES
Characterization of ultrathin SOI film and application to short channel MOSFETs	X.H. Tang, N. Reckinger, G. Larrieu, et al.	UCL, IMEN-ISEN	1, 4	Nanotechnology, Vol. 19, No. 16, 2008	published	No
Low Schottky barrier height for ErSi <sub>2-x</sub> /n-Si contacts formed with a Ti cap	N. Reckinger, X. Tang, V. Bayot, D.A. Yarekha, E. Dubois, S. Godey, X. Wallart, G. Larrieu, A. Łaszcz, J. Ratajczak, P.J. Jacques, J.P. Raskin	UCL IEMN	1	J. Appl. Physics 104, 2008	published	No
Impact of channel doping on Schottky barrier height and investigation on p-SB MOSFETs performance	G. Larrieu, E. Dubois, D. Yarekha, N. Breil, N. Reckinger, X. Tang, J. Ratajczak, A. Łaszcz	IEMN-ISEN, UCL	1	Materials Science and Engineering B	published	No
Amorphous to crystalline transition of Er silicide upon thermal annealing and impact on the Schottky barrier height	N. Reckinger, X. Tang, V. Bayot, D. A. Yarekha, E. Dubois, S. Godey, X. Wallart, G. Larrieu, A. Łaszcz, J. Ratajczak, P. J. Jacques, and J.-P. Raskin	UCL, IEMN-ISEN	1	Applied Physics Letters	submitted	Yes
RF small signal analysis of Schottky-Barrier p-MOSFET	R. Valentin, E. Dubois, J.-P. Raskin, G. Larrieu, G. Dambrine, Tao Chuan Lim, N. Breil and F. Danneville,	UCL, IEMN-ISEN	1	IEEE TED, vol. 55, no. 5, pp. 1192-1202, May 2008.	published	No
High Frequency Noise Performance of 60 nm gate length FinFETs	J.-P. Raskin, G. Paillancy, D. Lederer, F. Danneville, G. Dambrine, S. Decoutere, A. Mercha,	UCL, IEMN-ISEN, IMEC	4	IEEE TED, vol. 55, no. 10, pp. 2718-2727, October 2008.	published	No

	B. Parvais					
Experimental and Theoretical Analysis of Hole Transport in Uniaxially Strained pMOSFETs	K. Huet, M. Feraille, D. Rideau, R. Delamare V. Aubry-Fortuna, M. Kasbari, S. Blayac, C. Rivero, A. Bournel, C. Tavernier, P. Dollfus, H. Jaouen	UPS, STM	4	Proc. ESSDERC 2008, Institute of Physics (2008) 234-237	published	Yes
Leakage current effects on C-V plots of high-k MOS capacitors	Y. Lu, S. Hall, L. Z. Tan, I. Z. Mitrovic, W. M. Davey, B. Raeissi, O. Engstrom, K. Cherkaoui, S. Monaghan, P. K. Hurley, H.D.B. Gottlob, and M. C. Lemme	LIVUNI, Chalmers, AMO, Tyndall	1	JVST Jan 2009	accepted	Yes
Sensitivity of trigate MOSFETs to random dopant induced threshold voltage fluctuations	Ran Yan, Danny Lynch, Thibault Cayron, Dimitri Lederer, Aryan Afzalian, Chi-Woo Lee, Nima Dehdashti, J.P. Colinge,	INPG Tyndall	4	Solid-State Electronics, Vol. 52, No. 12, pp. 1872-1876, 2008	Published	No
A quasi two-dimensional compact drain current model for undoped symmetric double gate MOSFETs including short-channel effects	F. Lime, B. Iñiguez and O. Moldovan	URV, INPG	4	IEEE Trans. on Electron Devices, vol. 55, no. 6, pp. 1441-1448, June 2008	published	Yes
Conduction mechanisms of silicon oxide/titanium oxide MOS stack structures	J.C. Tinoco, M. Estrada, B. Iñiguez and A. Cerdeira	URV, UCL	1	Micro-electronics Reliability, Vol. 48, No 3, pp. 370-381, 2008	published	No
Threshold voltage model for bulk strained-silicon NMOSFETs	J C Tinoco, R Garcia, B Iñiguez, A Cerdeira and M Estrada	URV, UCL	1, 4	Semiconductor Science & Technology, 23 (2008) 035017	published	SINANO
Accurate prediction of the volume inversion impact on undoped Double-Gate MOSFET capacitances	O. Moldovan, F. A. Chaves, D. Jiménez, J. P. Raskin and B. Iñiguez	URV, UCL	4	International Journal of Numerical Modelling: Electronic Networks, Devices and Fields	submitted	Yes
Interface defects in HfO <sub>2</sub> , LaSiO <sub>x</sub> , and Gd <sub>2</sub> O <sub>3</sub> high-k/metal-gate structures on silicon: energy distribution and passivation,	P. K. Hurley, K. Cherkaoui, E. O'Connor, A.W. Groenland, M. C. Lemme, H. D. B. Gottlob, M. Schmidt, S. Hall, Y. Lu, O. Buiiu, B. Raeissi, J. Piscator and O. Engström	Tyndall, AMO, Liverpool, Chalmers	1.3	J. Electrochem. Soc. 155, G13 (2008)	Published	No
High-k-oxide/silicon interfaces characterized by capacitance frequency spectroscopy	B.Raeissi, J.Piscator, O. Engström, S.Hall, O. Buiiu, M.C.Lemme, H.D.B.Gottlob, P.K.Hurley, K.Charkaoui and H.J.Osten	Chalmers, Liverpool, AMO, Tyndall	1.3	Solid State Electronics, 52, 1274 (2008)	Published	No
Gd silicate: A High-k	H.D.B. Gottlob1,, A.	AMO,	1.3	J. Vacum. Sci.	Accepted	No

Dielectric Compatible with High Temperature Annealing	Stefani, M. Schmidt, M.C. Lemme, H. Kurz, I.Z. Mitrovic, M. Werner <sup>3</sup> , W.M. Davey, S. Hall, P.R. Chalker, K. Cherkaoui, P.K. Hurley, J. Piscator, O. Engström, S.B. Newcomb	Tyndall, Liverpool, Chalmers, Glebe		Tech.		
Deep level transient spectroscopy in quantum dot characterization.	O. Engström, M. Kaniewska	Chalmers, ITE	2.4	Nanotech. Res. Lett. 3,179 (2008)	Published	No
Thermal instability of electron traps in InAs/GaAs quantum dot structures	M. Kaniewska, O. Engström, M. Kaczmarczyk and G. Zaremba	ITE, Chalmers	2.4	Mater. Sci.: Mater. Electron. 19, S101 (2008)	Published	No
Electrical study of InAs/GaAs quantum dots with two different environments	M. Kaniewska, O. Engström, M. Kaczmarczyk, B. Surma, W. Jung and G. Zaremba	ITE, Chalmers	2.4	Phys. Stat. Sol. (c), 5, 2926 (2008)	Published	No
The high-mobility bended channel silicon nanowire transistor	K. E. Moselund, P. Dobrosz*, S. Olsen*, A. O'Neill*, D. Bouvet, L. De Michielis, V. Pott, D. Tsamados and A. M. Ionescu	EPFL, UNEW	2	IEEE TED	Submitted, in revision To appear 2009	Yes
Determination of electron effective mass and electron affinity in HfO <sub>2</sub> using MOS and MOSFET structures	S. Monaghan, P. K. Hurley, K. Cherkaoui, M. A. Negara, and A. Schenk	ETHZ, Tyndall	1, 2, 4	Solid State Electronics	In Press	No
Si-SiO <sub>2</sub> interface band-gap transition – effects on MOS inversion layer	S. Markov, P. V. Sushko, S. Roy, C. Fiegna, E. Sangiorgi, A. L. Shliger, and A. Asenov	GU, IUNET	4	Physika Status Solidi a Vol 205, pp 1290-1295 (2008)	Published	No
Analysis of Self-Heating Effects in Ultra-Thin Body SOI MOSFETs by Device Simulation	Claudio Fiegna <sup>1</sup> , Yang Yang, Enrico Sangiorgi <sup>1</sup> , Anthony G. O'Neill	UNEW, IUNET	4	IEEE Trans Electron Dev, Vol55, No.1, p233, 2008	Published (invited paper)	No
Strained Si/SiGe MOS technology: improving gate dielectric integrity	SH Olsen, L Yan, R Agaiby, E Escobedo-Cousin, AG O'Neill, P-E Hellström, M Östling, K Lyutovich, E Kasper, C Claeys and EHC Parker	UNEW, KTH, USTUTT, IMEC, Warwick	4	Microelectronics Engineering, 2008	Published (invited paper)	Yes
Reduced self-heating by strained silicon substrate engineering	A O'Neill, S Olsen, Y Yang, R Agaiby, P-E Hellstrom, M Ostling, K Lyutovich, E Kasper, G Eneman, P Verheyen, R Loo, C Claeys, C Fiegna and E Sangiorgi	UNEW, IUNET, USTUTT, KTH, IMEC	4	Applied Surface Science Vol 254 p6182 (2008)	Published (invited paper)	Yes
Nanoscale strain characterisation for ultimate CMOS and beyond	SH Olsen, P Dobrosz, RMB Agaiby, YL Tsang, O Alatise, SJ Bull, AG O'Neill, KE	UNEW, EPFL, FZJ	4	Materials Science in Semiconductor Processing	Accepted (invited paper)	Yes

	Moselund, AM Ionescu, P Majhi, D Buca, S Mantl and H Coulson					
Insight into the aggravated lifetime reliability in advanced MOSFETs with strained Si channels on SiGe strain relaxed buffers due to self-heating	R Agaiby, AG O'Neill, SH Olsen, G Eneman, P Verheyen, R Loo and C Claeys	UNEW, IMEC	4	IEEE Transactions on Electron Devices, vol. 55, pp. 1568-1573, 2008	published	SINANO

**Presentation at the Conferences and Workshops (emphasize if invited lectures)**

Title	Author(s)	Nanosil partners	Conference /Workshop	WP	Date & Location	Type of presentation	Status
SOI as a platform for transition from micro to nano	F. Balestra	INPG-IMEP	215 <sup>th</sup> ECS Meeting Symposium E9: SOI Device Technology	6	May 24-29, 2009, San Francisco, (USA)	Invited	Accepted
What is the killing advantage of multiple-gate SOI MOSFET?	F. Balestra	INPG-IMEP)	5th EUROSIOI Workshop	6	Goteborg, Sweden, January 2009	Invited, panel session	Accepted
Status and trends in Nanoscale Si-based devices and materials	F. Balestra	Coordinator	9th International Conference on Solid-State and Integrated-Circuit Technology	6	Beijing, China (October 20-23, 2008)	Invitedr	Done
New semiconductor Nanodevices	F. Balestra	Coordinator	International School on the Physics of Semiconducting Compounds 2008	6	Jaszowiec, Poland, June 2008	Invited	Done
NANOSIL Network of Excellence: Silicon-based nanostructures and nanodevices for long-term nanoelectronic applications.	F. Balestra, E. Parker, D. Leadley, S. Mantl, E. Dubois, O. Engstrom, R. Clerc, S. Cristoloveanu, H. Kurz, J.P. Raskin, M. Lemme, A. Ionescu, E. Kasper, A. Karmous, M. Baus, B. Spangenberg, M. Ostling, E. Sangiogi, G. Ghibaudo, D. Flandre	All	European Materials Research Society (E-MRS 2008), Symposium J	6	Strasbourg, France (26-30 Mai 2008)	Invited	Done
Mobility of strained and unstrained short channel MOSFETs: New insight by magnetoresist	M. Cassé, F. Rochette, N. Bhouri, F. Andrieu, K. Romanjek, D.K. Maude, M. Mouis, G. Reibold, F.	CEA/LETI, INPG-IMEP	Symposium on VLSI Technology (VLSI 2008), Proceedings IEEE. pp. 170-1.	4.3	June 17-20, 2008, Honolulu, Hawai (USA)	Oral	Done

ance	Boulanger		Piscataway, NJ, USA				
Emerging nanotechnology	T. Baron, B. Salem, F. Dhalluin, P. Gentile, N. Pauc, M. Den Hertog, J.L. Rouvière, P. Mur, B. De Salvo, P. Ferret, J. Dufourcq, S. Bodnar	FMNT-LTM, CEA	38 <sup>th</sup> European Solid-State Device Research Conference (ESSDERC)		Edinburgh, UK (15-19 Sept 2008)	Invited	Done
The Ge condensation technique: a solution for planar SOI/GeOI co-integration for advanced CMOS technologies?	B. Vincent, J.F. Damlencourt, Y. Morand, A. Pouydebasque, C. Le Royer, L. Clavelier, N. Dechoux, P. Rivallini, T. Nguyen, S. Cristoloveanu, Y. Campidelli, D. Rouchon, M. Mermoux, S. Deleonibus, D. Bensahel, T. Billon	STM, CEA-LETI, INPG-IMEP	European Materials Research Society (E-MRS 2008), Symposium J. Proceedings in Materials Science in Semiconductor Processing, Elsevier	1.1	Strasbourg, France (May 26-30, 2008)	Invited	Done
A Mobility Extraction Method for 3D Multichannel Devices	C. Dupré, T. Ernst, E. Bernard, B. Guillaumot, N. Vulliet, P. Coronel, T. Skotnicki, S. Cristoloveanu, G. Ghibaudo and S. Deleonibus	CEA/LETI, STM, INPG-IMEP	38 <sup>th</sup> European Solid-State Device Research Conference (ESSDERC'08)	4.3	Edinburgh, UK (15-19 Sept 2008)	Oral	Done
Characterization methods for nanodevices.	S. Cristoloveanu	INPG-IMEP	38 <sup>th</sup> European Solid-State Device Research Conference ESSDERC'08	4.3	Edinburgh, UK (15-19 Sept 2008)	Invited	Done
Introduction of diamond into advanced FDSOI CMOS	J-P. Mazellier, O. Faynot, F. Andrieu, S. Cristoloveanu, S. Deleonibus	CEA-LETI, INPG-IMEP	4 <sup>th</sup> EUROSOCI Workshop	1.1	Cork, Ireland (23-25 janvier 2008)	Oral	Done
Ge diffusion during Ge-condensation process	C.S. Beer, R.J.H. Morris, T.E. Whall, E.H.C. Parker and D.R. Leadley	Warwick	ISTDM	1	Taiwan, (May, 2008)	Poster	Done
Ge-On-Insulator substrates formed by Ge condensation technique: fabrication, modeling and characterization.	J.F. Damlencourt, B. Vincent, C. Le Royer, P. Rivallin, E. Martinez, M.C. Roue, Y. Campidelli, D. Rouchon, T. Nguyen, S. Cristoloveanu, Y. Morand, S. Descombes, L. Clavelier	Grenoble INP	International Conference of Electronic Materials, sponsored by Int. Union of Materials Research Society (ICEM-IUMRS 2008)	1.1	Sydney, Australia (28 juillet - 1 août 2008)	Invited	Done

Quantum transport in nanowire metal-oxide-semiconductor transistors: influence of dielectric confinement	M. Bescond, M. Lannoo, F. Michelini, N. Cavassilas, M. G. Pala	INPG, CNRS	ICPS	2.4, 4.3	Rio de Janeiro, July 27-August 1, 2008	Poster	done
Full 3D Real-Space NEGF Simulation of Transport and Magnetotransport in Si-Nanowire FETs	C. Buran, M. G. Pala, M. Bescond and M. Mouis	INPG, CNRS	ESSDERC	2.4, 4.3	Rio de Janeiro, July 27-August 1, 2008	Poster	done
Reverse graded SiGe/Ge/Si heterostructures for high-composition virtual substrates.	V.A.Shah, D.R.Leadley, D.Fulgoni, J.Parsons, E.H.C.Parker	Warwick	E-MRS	1	Strasbourg (May 2008)	Oral	Done
Channel Backscattering Characteristics of High Performance Germanium pMOSFETs	A. Dobbie, B. De Jaeger, M. Meuris, T.E. Whall, E.H.C. Parker and D.R. Leadley	Warwick, IMEC	ULIS	1	Udine, Italy (March, 2008)	Oral	Done
Anomalous Ge diffusion effects during Ge-condensation	C.S. Beer, T.E. Whall, R.J.H. Morris, E.H.C. Parker and D.R. Leadley	Warwick	ULIS	1	Udine, Italy (March, 2008)	Poster	Done
The role of interface states in the low temperature mobility of hafnium-oxide gated Ge-pMOSFETs and the effect of a hydrogen anneal	C.S. Beer, T.E. Whall, E.H.C. Parker, D.R. Leadley, B. De Jaeger, G. Nicholas, P. Zimmerman and M. Meuris	Warwick, IMEC	ULIS	1	Udine, Italy (March, 2008)	Oral	Done
Relaxation of Strained Silicon on $\text{Si}_{0.5}\text{Ge}_{0.5}$ Virtual Substrates	J. Parsons, R.J.H. Morris, D.R. Leadley and E.H.C. Parker	Warwick	ULIS	1	Udine, Italy (March, 2008)	Poster	Done
Confinement and Transport in Silicon Based Quantum Structures	B. Berghoff, R. Rölver, B. Spangenberg, D. Bätzner, H. Kurz, A. Dimyati, A. Sologubenkoo, J. Mayer	RWTH	33rd IEEE Photovoltaic Specialists Conference,	2 2.4	San Diego, 11.05-16.05. (2008)	oral	done
Towards Schottky-Barrier Source/Drain MOSFETs	M. Östling, V. Gudmundsson, P.-E. Hellström, B.G. Malm, Z. Zhang, S.-L.	KTH	2008 9 <sup>TH</sup> International Conference on Solid-State and	1 and 3	October 20-23, Beijing, China	Invited presentation	Done

	Zhang		Integrated-Circuit Technology				
Substrate impact on sub-32 nm Ultra Thin SOI MOSFETs with Thin Buried Oxide	S. Burignat, D. Flandre, V. Kilchytska, F. Andrieux, O. Faynot and J.-P. Raskin	UCL, CEA	EuroSOI 2009	4	Jan. 2009 Gothenburg	oral	accepted
Transconductance and Mobility Behaviors in UTB SOI MOSFETs with Standard and Thin BOX	T. Rudenko, V. Kilchytska, S. Burignat, J.-P. Raskin, F. Andrieux, O. Faynot, A. Nazarov, V.S. Lysenko and D. Flandre	UCL, CEA	EuroSOI 2009	4	Jan. 2009 Gothenburg	oral	accepted
Impact of channel doping on Schottky barrier height and investigation on p-SB MOSFETs performance	G. Larrieu, E. Dubois, D. Yarekha, N. Breil, N. Reckinger, X. Tang, J. Ratajczak, A. Laszcz	IEMN UCL	e-MRS Spring Meeting	1	26-30 May 2008 Strasbourg	Oral	done
Selective etching of implanted silicon-dioxide in hydrofluoric acid	V. Passi, A. Lecestre, E. Dubois, J.P. Raskin	UCL IEMN	34th Conference on Micro and Nano Technology	2	September 15-18, 2008, Athens	Oral	done
Investigation on the Platinum Silicide Schottky Barrier Height Modulation using a Dopant Segregation Approach	N. Breil, A. Halimaoui, E. Dubois, E. Lampin, Ludovic Godet, George Papasouliotis, Guilhem Larrieu	IEMN	MRS-Spring Meeting, Mater. Res. Soc	1	24-28 April 2008 San Francisco	oral	done
Impact of channel doping on Schottky barrier height and investigation on p-SB MOSFETs performance	G. Larrieu, E. Dubois, D. Yarekha, N. Breil, N. Reckinger, X. Tang, J. Ratajczak, A. Laszcz	IEMN UCL	e-MRS Spring Meeting	1	26-30 May 2008 Strasbourg	Oral	done
Selective etching of implanted silicon-dioxide in hydrofluoric acid	V. Passi, A. Lecestre, E. Dubois, J.P. Raskin	UCL IEMN	34th Conference on Micro and Nano Technology	2	September 15-18, 2008, Athens	Oral	done
DC and RF characteristics of a 60 nm FinFET for a wide temperature	J. C. Tinoco, B. Parvais, A. Mercha, S. Decoutere, J-P Raskin	UCL, IMEC	EUROSOI – 2008	4	Tyndall January 23-25, 2008	Oral	done

range								
Revised RF extraction methods for deep submicron MOSFETs”	J. C. Tinoco and J.-P. Raskin,	UCL	38th European Microwave Week 2008	4	Amsterdam , October 28-31, 2008, pp. 127-130.	Oral	done	
RF-extraction methods for MOSFET series resistances: a fair comparison	J. C. Tinoco and J.-P. Raskin,	UCL	Seventh International Caribbean Conference on Devices, Circuits and Systems	4	Cancun, Mexico, April 28-30, 2008, paper 64, pp. 1-6.	Oral	done	
Optimizing FinFET Geometry and Parasitics for RF applications	A. Kranti, J.-P. Raskin and G. A. Armstrong,	UCL	IEEE International SOI Conference, SOI'2008,		New York, USA, October 6-9, 2008, pp. 123-124.	Oral	done	
Impact of temperature reduction and channel engineering on the linearity of FD SOI nMOSFETs	M. de Souza <sup>1</sup> , D. Flandre, J. A. Martino, E. Simoen, C. Claeys, M. A. Pavanello;	UCL, IMEC	EuroSOI 2009	4	Jan. 2009, Gothenburg,	Oral	done	
Experimental and Theoretical Analysis of Hole Transport in Uniaxially Strained pMOSFETs	K. Huet, M. Feraille, D. Rideau, R. Delamare V. Aubry-Fortuna, M. Kasbari, S. Blayac, C. Rivero, A. Bournel, C. Tavernier, P. Dollfus, H. Jaouen	UPS, STM	ESSDERC 2008	4	15-19 Sept., Edinburgh, UK	oral	done	
Wigner Monte Carlo approach to quantum transport in nanodevices	P. Dollfus, D. Querlioz, J. Saint-Martin, V. Nam Do, A. Bournel	UPS	SISPAD 2008	4	9-11 Sept., Hakone Japan	invited	done	
On the Wigner Formalism of Quantum Transport in Semiconductor Nanodevices	P. Dollfus, D. Querlioz, J. Saint-Martin, V. Nam Do, A. Bournel	UPS	AMSN 2008	4	15-21 Sept., Nha Trang, Viet Nam	invited	done	
Electron-phonon interaction in silicon quantum dots	A. Valentin, J. Sée, S. Galdin-Retailleau, P. Dollfus	UPS	ULIS 2008	2	13-14 March, Udine, Italy	oral	done	
Particle Monte Carlo approach to semi-classical and quantum transport in CNTFET within a multiscale	P. Dollfus, S. Galdin-Retailleau, H. Cazin d'Honincthun, H. Nha Nguyen, D. Querlioz, A. Bournel	UPS	CCTN 08	2	28 June, Montpellier, France	invited	done	

simulation framework from atoms to circuit							
Static and dynamic performance of CNTFETs using particle Monte Carlo simulation	H. Nha Nguyen, H. Cazin d'Honincthun, P. Dollfus, A. Bournel, S. Galdin-Retailleau	UPS	NT 08	2	29 Jun. - 4 Jul., Montpellier, France	poster	done
Electronic transport and spin polarization effects in single graphene barrier structures	V. Nam Do, V. Hung Nguyen, P. Dollfus, A. Bournel	UPS	NT 08	2	29 Jun. - 4 Jul., Montpellier, France	poster	done
Effect of edge disorder on the bandgap of graphene nanoribbons	D. Querlioz, Y. Apertet, A. Valentin, K. Huet, A. Bournel, S. Galdin-Retailleau, P. Dollfus	UPS	NT 08	2	29 Jun. - 4 Jul., Montpellier, France	poster	done
Platforms for planar & non-planar ultrathin silicon	M. Schmidt, H.D.B. Gottlob, J. Bolten, T. Wahlbrink, T. Mollenhauer, M. Bückins, T.E. Weirich, F. Dorn, J. Mayer, H. Kurz	AMO	EUROSIOI 2009	2	19.01.2009 Gotenburg, Sweden	oral	done
Leakage current effects on C-V plots of high-k MOS capacitors	Y. Lu, S. Hall, L. Z. Tan, I. Z. Mitrovic, W. M. Davey, B. Raeissi, O. Engstrom, K. Cherkaoui, S. Monaghan, P. K. Hurley, H.D.B. Gottlob, and M. C. Lemme	LIVUNI, Chalmers, AMO, Tyndall	Workshop on Dielectrics in Microelectronics WoDiM 2008	1	June 23 – 25, 2008 in Bad Saarow (Berlin), Germany	poster	done
Quest for an Optimal Gadolinium Silicate Gate Dielectric Stack	I.Z. Mitrovic, M. Werner, W.M. Davey, S. Hall, P.R. Chalker, H.D.B. Gottlob, M.C. Lemme, O. Engstrom, K. Cherkaoui and P.K. Hurley	LIVUNI, Chalmers, AMO, Tyndall	39th IEEE Semiconductor or Interface Specialists Conference SISC 2009	1	December 11-13, 2008 San Diego, (CA), USA	poster	accepted
Small-Signal Compact Modelling of Multi-Gate MOSFETs	B. Iñiguez	URV	IEEE EDS Mini-Colloquium on Advanced Electron Devices Technology & Modeling	4, 2	Cambridge (UK), September 12 2008	Invited lecture	Done
Porous anodic alumina thin films on Si as	A. G. Nassiopoulou, V. Gianneta, F.	IMEL	1st IC4N-2008: International	2.4	Halkidiki, Greece, 16-18 June	Invited	done

masking layers for silicon surface nanostructuring and as templates for nanostructure growth	Zacharatos, M. Kokonou, M. Hauffman		Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems		2008		
Structural, chemical and light emission properties of very thin anodic silicon films fabricated by short single current pulses	S. Gardelis, A. G. Nassiopoulou, F. Petraki, S. Kennou, I. Tsiaoussis, N. Frangis	IMEL	XXIV Panhellenic Conference on Solid State Physics and Materials Science	2.4	Heraklion, Crete, September 21-24, 2008	Invited	done
Advanced compact modeling techniques of nanoscale Multi-Gate MOSFETs	B. Iñiguez, A. Lázaro, O. Moldovan, B. Nae, A. Cerdeira	URV	IEEE Lester Eastman Conference	4, 2	Newark (Delaware, USA), August 5-7 2008	Invited lecture	Done
Compact Modeling Techniques in Thin Film SOI MOSFETs	B. Iñiguez, D. Flandre	URV, UCL	MOS-AK Workshop	4	Edinburgh (UK), September 19 2008	Invited lecture	Done
Finite element Simulations of parasitic capacitances related to multiple-gate field-effect transistors Architectures	O. Moldovan, D. Lederer, B. Iñiguez, J. P. Raskin	URV, Tyndall, UCL	8th IEEE Topical Meeting on Silicon Monolithic Integrated Circuits in RF Systems (SiRF 2008)	4	Orlando (FL, USA), January 23-25 2008	Poster	Done
Compact Charge and Capacitance Modeling of Undoped Ultra-Thin-Body SOI MOSETs	O. Moldovan, F. A. Chaves, D. Jimenez, B. Iñiguez	URV	EUROSOSI 2008 Workshop	4	Cork (Ireland), January 23-25 2008	Poster	Done
DC, RF and Noise Compact Model for FinFETs Including Quantum Effects	B. Nae, A. Lázaro, B. Iñiguez, F. García, M. Tienda-Luna, A. Godoy	URV, UGR	Conference on Design of Circuits and Integrated Systems (DCIS)	4	Grenoble (France), November 12-14 2008	Oral	Done
Study of Ballisticity in SOI Nano-MOSFETs at Very Low Drain Bias	C. Sampedro, F. Gámiz, A. Godoy, S. Cristoloveanu and I. M. Tienda-Luna	UGR, INPG	EUROSOSI 2008 Workshop	4	Cork (Ireland), January 23-25 2008	Oral presentation	Done
Equivalent Oxide Thickness of SOI-GAA devices	F. J. García Ruiz, I.M. Tienda-Luna, L. Donetti, A. Godoy, F. Gámiz	UGR	EUROSOSI 2008 Workshop	1, 4	Cork (Ireland), January 23-25 2008	Poster	Done

In-depth characterization of quantum effects in SOI MOSFETs for modeling purposes	J. B. Roldán, M. Balaguer, A. Godoy, F. G. Ruiz, F. Gámiz	UGR	EUROSOI 2008 Workshop	4	Cork (Ireland), January 23-25 2008	Poster	Done
Impact of the top surface density of states on the characteristics of ultrathin SOI pseudo-MOSFETs	N. Rodriguez, S. Cristoloveanu, T. Nguyen, F. Gámiz	UGR, INPG	EUROSOI 2008 Workshop	4	Cork (Ireland), January 23-25 2008	Poster	Done
Enhanced Electron Transport by Carrier Overshoot in Ultrascaled Double Gate MOSFETs	N. Rodriguez, L. Donetti, C. Sampedro, F. Martinez-Carricondo, F. Gamiz	UGR, INPG	ULIS-2008, The 9th International Conference On Ultimate Integration On Silicon	4	Udine (Italy), March 12-14 2008	Poster	Done
Fully self-consistent k p solver and Monte Carlo simulator for hole inversion layers	L. Donetti, F. Gamiz, A. Godoy, N. Rodriguez	UGR, INPG	ESSDERC-2008, European Solid State Device Research Conference	4	Edinburgh (UK), September 15-19	Oral	Done
Simulation of CMOS inverters based on the novel Surrounding Gate Transistors. A Verilog-A implementation	A. Roldán, J. B. Roldán, F. Gamiz	UGR	MOS-AK Workshop	4	Edinburgh (UK), September 19	Poster	Done
A Revisited Pseudo-MOSFET Model for Ultrathin SOI Films	N. Rodriguez, S. Cristoloveanu, F. Gamiz	UGR, INPG	2008 IEEE International SOI Conference	4	New Palz, NY (USA), October 6-9	Poster	Done
Gd silicate: A High-k Dielectric Compatible with High Temperature Annealing,	H.D.B. Gottlob, M. Schmidt, M.C. Lemme, H. Kurz, I.Z. Mitrovic, M. Werner, W.M. Davey, S. Hall, P.R. Chalker, K. Cherkaoui, P.K. Hurley, B. Raeissi, O. Engström, and S.B. Newcomb	AMO, Liverpool, Tyndall, Chalmers	Workshop on Dielectrics in Microelectronics (WoDiM 2008)	1.3	June 23 – 25, 2008 in Bad Saarow (Berlin), Germany	Oral	Done
A generalized methodology for oxide leakage current metric,	O. Engström, J. Piscator, B. Raeissi, P. K. Hurley, K. Charkaoui, S. Hall, M.C. Lemme and H.D.B. Gottlob	Chalmers, Tyndall, Liverpool, AMO	Ultimate Integration on Silicon Conference (ULIS08),	1.3	March 2008, Udine	Poster	Done
Comprehensive study of	M. Kaczmarczyk, O. Engström, J.	ITE, Chalmers	9 <sup>th</sup> Exmatec,	2.4	June 2008, Lodz	Poster	Done

InAs/GaAs quantum dots by means of complementary methods	Piscator, M. Kaniewska, B. Surma, S. Lin and A. R. Peaker,						
Method for identifying confined electron states in quantum dot structures	M. Kaczmarczyk, O. Engström and M. Kaniewska	ITE, Chalmers	9 <sup>th</sup> Exmatec	2.4	June 2008, Lodz	Poster	Done
Metastable behavior of 1 eV trap in InAs/GaAs quantum dot structures	G. Zaremba, O. Engström, M. Kaniewska and M. Kaczmarczyk	ITE, Chalmers	9 <sup>th</sup> Exmatec,	2.4	June, 2008, Lodz	Poster	Done
Characterization of deep levels and quantum confined energy levels in InAs/ GaAs quantum dot structures by electrical methods	M. Kaniewska, O. Engström, M. Kaczmarczyk and G. Zaremba	ITE, Chalmers	ICCE 16, Kunming, China	2.4	July 2008	Oral	Done
Deep level transient spectroscopy in quantum dot characterization,	O. Engström and M. Kaniewska	Chalmers, ITE	Villa Conference on Interaction among Nanostructures	2.4	February 2008, Orlando, Florida	Oral	Done
Multiphonon capture of electrons at high-k-silicon interfaces	O. Engström, B. Raeissi and J. Piscator	Chalmers	Gordon Conference	1.3	August, 200 8 New London, New Hampshire	Poster	Done
Electron traps at HfO <sub>2</sub> /SiO <sub>x</sub> interfaces	B. Raeissi, Y. Y. Chen, J. Piscator, Z. H. Lai and O. Engström	Chalmers	ESSDERC 2008	1.3	September 2008, Edinburgh	Oral	Done
Future high-k gate stack materials	O. Engström	Chalmers	Tutorial given at ESSDERC 08.	1.3	September 2008, Edinburgh	Invited	Done
High-k dielectrics and metal gates	O. Engström	Chalmers	MIGAS'08,	1.3	July, 2008, Autrans, France	Invited	Done
Small slope switches	A.M. Ionescu	EPFL	Nanosil workshop @ ESDERC 2008	2.3	September 18 <sup>th</sup> , Edinburg	oral	done
Determination of Physical Parameters for HfO <sub>2</sub> /SiO <sub>x</sub> /TiN MOSFET Gate Stacks by Electrical Characterization and Reverse Modeling	S. Monaghan, P. K. Hurley, K. Cherkaoui, M. A. Negara, and A. Schenk	ETHZ, Tyndall	ULIS'2008	1, 2, 4	Udine, Italy, 12 - 14 March 2008	oral	done
Advanced simulation of statistical	A. Asenov, S. Roy, A. R. Brown, G. Roy, C.	GU	IEDM	4	15 Dec San Francisco	Invited	done

variability and reliability in nano CMOS transistors	Alexander, C. Riddet, C. Millar, B. Cheng, A. Martinez, N. Seoane, D. Reid, M. F. Bukhori, X. Wang, U. Kovac						
Fabrication and characterisation of strained Si heterojunction bipolar transistors on virtual substrates	S. Persson, M. Fjer, E. Escobedo- Cousin, G. Malm, Y.-B. Wang, P.-E. Hellström, M. Östling, E. Parker, S.H. Olsen and A.G. O'Neill	UNEW, KTH, Warwick	IEDM	1, 4	Dec 08, San Francisco		done
Piezomobility Description of Strain-Induced Mobility	A. O'Neill, Y. L. Tsang, B. J. Gallacher, S.H. Olsen	UNEW	ICSICT	1, 4	Oct 08, Beijing	Invited paper	done
Strain engineering for high mobility channels	S Olsen, ZA Tarawneh, J Varzgar, E Escobedo- Cousin, R Agaiby, P Dobrosz, A O'Neill, P-E Hellström, M Östling, E Parker, R Loo and C Claeys	UNEW, KTH, Warwick, IMEC	ICST	1, 4	March 08, Shanghai	Invited paper	done
Nanoscale strain characterisation for ultimate CMOS and post-CMOS devices	SH Olsen, P Dobrosz, RMB Agaiby, YL Tsang, O Alatise, SJ Bull, AG O'Neill, KE Moselund, AM Ionescu, P Majhi, D Buca, S Mantl and H Coulson	UNEW, EPFL, FZJ	EMRS	4	May 08, Strasbourg	Invited paper	done
Gate leakage in high mobility substrates: correlating macroscopic leakage with nanoscale measurements	SH Olsen et al	UNEW, IMEC	MRS Spring Meeting	4	April 09, San Francisco	Invited paper	
Nanoscale strain characterisation in patterned SSOI structures	P Dobrosz, SH Olsen, SJ Bull, YL Tsang, RMB Agaiby, AG O'Neill, D Buca, S Mantl, B Ghyselen	UNEW, FZJ,	EMRS	4	May 08, Strasbourg		done
Nanometer scale strain profiling through Si/SiGe heterolayers	RMB Agaiby, SH Olsen, P Dobrosz, H Coulson, SJ Bull and AG O'Neill	UNEW	EMC	4	June 08, Santa Barbara		done
Improved analog performance of strained Si n-MOSFETs on thin SiGe	O Alatise, KSK Kwa, S Olsen and A O'Neill	UNEW	ESSDERC	1, 4	Sept 08, Edinburgh		done

strain relaxed buffers							
Investigation of strain profile optimization in gate-all-around suspended silicon nanowire FET	M Najmzadeh, K Moselund, A Ionescu, P Dobrosz, S Olsen and A O'Neill	EPFL, UNEW	ESSDERC	1, 2, 4	Sept 08, Edinburgh		done
Top down and Bottom-up routes to nanoscale electronic components	A Houlton, BR Horrocks, NG Wright, S Olsen and A O'Neill	UNEW	Intel European Research and Innovation Conference		Sept 08, Dublin	Invited paper	done
Source-drain Engineering for Channel-limited PMOS Device Performance: Advances in Understanding of Amorphization-Based Implant Techniques	NEB Cowern	UNEW	MRS Spring Meeting		April 08, San Francisco	Invited paper	done
Schottky source-drain contacts	E. Dubois	IEMN-ISEN	MIGAS'08,	1	International Summer School on Advanced Microelectronics, 28.06 – 4.07. 2008	Invited	done