# 24th International Conference on Noise and Fluctuations

PROGRAMME

June 20-23, 2017

Vilnius, Lithuania

## June 19 (Monday)

***National Gallery of Art***

*Konstitucijos av. 22, LT-08105 Vilnius*

*http://www.ndg.lt/visitor-information.aspx*

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| 16:30 – 18:00 | Registration |
| 18:00 – 20:00 | Welcome reception |

## June 20 (Tuesday)

***Vilnius University***

*Universiteto st. 3, LT-01513 Vilnius*

*http://www.vu.lt/en/*

| June 20 (Tuesday) | | | |
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| | 8:00 – 9:00 | Registration | |
| | | ***Opening (Aula Parva)*** *Chairs: S. Pralgauskaitė, P. Sakalas* | |
| | 9:00 – 9:40 | Opening ceremony | |
| | 9:40 – 9:55 | J. Šikula, L. K. J. Vandamme, G. Bosman *In the memory of Prof. Carolyne van Vliet* | |
| | 9:55 – 10:40 | M. J. Deen *Low-frequency noise in semiconductor devices – state-of- the-art and future perspectives (Plenary paper)* | A01 |
| | 10:40 – 11:10 | *Coffee break* | |
| | | ***Session A1: Theory of noise, fluctuations and stochastic processes (Aula Parva)*** *Chair: L. Varani* | |
| | 11:10 – 11:40 | A. Crepieux, P. Eymeoud, F. Michelini *Getting information from the mixed electrical-heat noise (Invited paper)* | A1.1 |
| | 11:40 – 12:10 | L. B. Kish, G. A. Niklasson, C. G. Granqvist, D. K. Ferry, J. M. Smulko *Facts and myths about zero-point thermal noise, and information entropy versus thermal entropy (Invited paper)* | A1.2 |
| | 12:10 – 12:30 | P. H.Handel *Physical 1/f noise and phase noise in piezoelectrics, MEMS resonators and sensors* | A1.3 |

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| **June 20 (Tuesday)** | ***Session B1: Noise and fluctuations in optic, optoelectronic and photonic devices and systems (the Theatre Hall)***<br>*Chair: S. Pralgauskaitė* | | |
| | 11:10 – 11:30 | D. Petrulionis<br>*Noise problems in femtosecond laser oscillators and amplifiers* | B1.1 |
| | 11:30 – 11:50 | K. Mikitchuk, A. Chizh, S. Malyshev<br>*Noise and gain of an erbium-doped fiber amplifier for delay-line optoelectronic oscillator* | B1.2 |
| | 11:50 – 12:10 | N. Von Bandel, M. Myara, B. Chomet, M. Sellahi, T. Souici, R. Dardaillon, P. Signoret<br>*Time dependent linewidth : beat-note digital acquisition and numerical analysis* | B1.3 |
| | 12:10 – 12:30 | C. Durnez, V. Goiffon, S. Rizzolo, P. Magnan, C. Virmontois, L. Rubaldo<br>*Localization of dark current random telegraph signal sources in pinned photodiode CMOS image sensors* | B1.4 |
| | 12:30 – 12:50 | J. Zdanevičius, K. Ikamas, J. Matukas, A. Lisauskas, H. Richter, H.-W. Hübers, M. Bauer, H. G. Roskos<br>*TeraFET detector for measuring power fluctuations of 4.75-THz QCL-generated radiation* | B1.5 |
| | 12:50 – 14:00 | *Lunch* | |
| | ***Session A2: Noise and fluctuations in mesoscopic devices and nanostructures (Aula Parva)***<br>*Chair: J. Deen* | | |
| | 14:00-14:30 | S. U. Piatrusha, V. S. Khrapai<br>*Measuring electron energy distribution by current fluctuations (Invited paper)* | A2.1 |
| | 14:30-14:50 | V. Handziuk, M. Coppola, V. Sydoruk, F. Gasparyan, D. Mayer, S. Vitusevich<br>*Noise characterization of molecular junctions* | A2.2 |

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| **June 20 (Tuesday)** | 14:50-15:10 | S. U. Piatrusha, V. S. Khrapai, Z. D. Kvon, N. N. Mikhailov, S. A. Dvoretsky, E. S. Tikhonov<br>*Edge states in p-n junctions in inverted band HgTe quantum wells* | A2.3 |
| | 15:10-15:30 | A. Porciatti, Z. Wang, P. Marconcini, G. Pennelli, G. Basso, D. Neumaier, M. Macucci<br>*Flicker noise in graphene-based Hall sensors* | A2.4 |
| | 15:30-15:50 | W. Belzig, J. Bulte, A. Bednorz, Ch. Bruder<br>*Symmetrized and non-symmetrized noise from weak measurements in mesoscopic circuits* | A2.5 |
| | ***Session B2: Noise and fluctuations in electronic devices (the Theatre Hall)***<br>*Chair: C.-H. Chen* | | |
| | 14:00-14:20 | K. Ikamas, A. Lisauskas, M. Bauer, A. Rämer, S. Massabeau, D. Čibiraitė, M. Burakevič, S. Chevtchenko, J. Mangeney, W. Heinrich, V. Krozer, H. G. Roskos<br>*Efficient detection of short-pulse THz radiation with field effect transistors* | B2.1 |
| | 14:20-14:40 | S. Hedayat, I. Sourikopoulos, Ch. Loyez, F. Danneville, L. Clavier, V. Hoel, A. Cappy<br>*Experimental investigation of stochastic resonance in a 65 nm CMOS artificial neuron* | B2.2 |
| | 14:40-15:00 | A. Kerlain, A. Brunner, P. Guinedor, T. Broult, V. Destefanis, L. Rubaldo, F. Rochette<br>*Low frequency noise in HgCdTe infrared focal plane arrays* | B2.3 |
| | 15:00-15:20 | E. Simoen, B. J. O'Sullivan, R. Ritzenthaler, E. Dentoni Litta, T. Schram, N. Horiguchi, V. Machkaoutsan, P. Fazan, Y. Li<br>*Improving the low-frequency noise performance of input/output DRAM peripheral pMOSFETs* | B2.4 |

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| **June 20 (Tuesday)** | 15:20-15:40 | B. Nafaa, B. Cretu, N. Ismail, O. Touayar, E. Simoen<br>*Impact of channel orientation on low frequency noise performances of UTBOX nMOSFETs operated at liquid nitrogen temperature* | B2.5 |
| | 15:40-16:20 | *Coffee break* | |
| | ***Session A3: Noise and fluctuations in biological systems (Aula Parva)***<br>*Chair: M. Ramonas* | | |
| | 16:20 – 16:40 | D. M. Holloway, A. V. Spirov<br>*Stochastic dynamics of gene expression in developing fly embryos* | A3.1 |
| | 16:40 – 17:00 | I. A. Khovanov, S. M. Cosseddu<br>*A novel fluctuational approach to analysis of the permeation in ion channels* | A3.2 |
| | 17:00 – 17:20 | W. A. T. Gibby, D. G. Luchinsky, I. Kh. Kaufman<br>*Kinetic model of selectivity and conductivity of the KcsA filter* | A3.3 |
| | 17:20 – 17:40 | I. Yamaguchi, A. Kishi, F. Togo, T. Nakamura, Y. Yamamoto<br>*Spectral analysis method for sleep-state cycle based on the cortico-thalamo-cortical loop strength estimation* | A3.4 |
| | 17:40 – 18:00 | G. Vadai, D. Vince, F. Lakos, R. Mingesz<br>*Spectral analysis of fluctuations in humans' daily motion* | A3.5 |

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| **June 20 (Tuesday)** | ***Session B3: Noise and fluctuations in materials (the Theatre Hall)***<br>*Chair: M. Macucci* | | |
| | 16:10 – 16:30 | F. Grüneis<br>*1/f Noise and intermittency due to electron-phonon scattering in semiconductor materials* | B3.1 |
| | 16:30 – 16:50 | S. Pralgauskaitė, J. Matukas, M. Tretjak, J. Macutkevič, J. Banys, P. Kuzhir, E. Ivanov, R. Kotsilkova<br>*Low frequency noise spectroscopy of multi-walled carbon nanotubes composites* | B3.2 |
| | 16:50 – 17:10 | J. Przybytek, J. Fink-Finowicki, G. Jung<br>*Two level telegraphic conductivity fluctuations in ferromagnetic insulating manganite single crystals* | B3.3 |
| | 17:10 – 17:30 | S. Beyne, T. Beyne<br>*Fluctuation scaling in metals* | B3.4 |

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| **June 21 (Wednesday)** | **June 21 (Wednesday)**<br>***Vilnius University***<br>*Universiteto st. 3, LT-01513 Vilnius*<br>*http://www.vu.lt/en/* | | |
| | ***Session A4: Theory of noise, fluctuations and stochastic processes (Aula Parva)***<br>*Chair: P. H. Handel* | | |
| | 9:00 – 9:30 | P. Lahteenmaki, Gh. Sorin Paraoanu, P. J. Hakonen<br>*Vacuum-noise-induced multimode correlations in a superconducting cavity (Invited paper)* | A4.1 |
| | 9:30 – 9:50 | R. M. Howard<br>*A modified random telegraph signal with a 1/f PSD* | A4.2 |

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| **June 21 (Wednesday)** | 9:50 – 10:10 | A. A. Dubkov<br>*Exact results for steady-state probability characteristics of Verhulst and Hongler models perturbed by Poisson white noise* | A4.3 |
| | 10:10 – 10:30 | J. Spiechowicz, P. Talkner, P. Hanggi, J. Łuczka<br>*Nonmonotonic temperature dependence of diffusion in driven periodic systems* | A4.4 |
| | ***Session B4: Noise in circuits and systems (the Theatre Hall)***<br>*Chair: E. Šermukšnis* | | |
| | 9:00 – 9:30 | W. Wei, D. Fadil, E. Pallecchi, G. Dambrine, H. Happy, M. Deng, S. Fregonese, T. Zimmer<br>*High frequency and noise performance of GFETs (Invited paper)* | B4.1 |
| | 9:30 – 9:50 | M. Bonnin, F. L. Traversay, F. Bonani,<br>*Efficient vibration energy harvesting through noise induced transitions* | B4.2 |
| | 9:50 – 10:10 | A. Caizzone, A. Boukhayma, Ch. Enz<br>*Comprehensive noise analysis in PPG read-out chains* | B4.3 |
| | 10:10 – 10:30 | C. Spathis, A. Birbas, K. Georgakopoulou, M. Birbas<br>*Noise and uncertainty in comparator/TDC sensor readout circuits* | B4.4 |
| | 10:30 – 11:00 | *Coffee break* | |
| | ***Session A5: Noise modeling and simulation (Aula Parva)***<br>*Chair: W. Belzig* | | |
| | 11:00 – 11:30 | M. Ramonas<br>*Microscopic modeling of fluctuations in polar semiconductors with high density electron gas (Invited paper)* | A5.1 |
| | 11:30 – 12:00 | W. Zhou, Ch. Zimmermann, Ch. Jungemann<br>*Analysis of trap-induced noise in organic light-emitting diodes based on the master equation (Invited paper)* | A5.2 |

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| **June 21 (Wednesday)** | 12:00 – 12:20 | S. Karishy, C. Palermo, G. Sabatini, H. Marinchio, L. Varani, J.r Mateos, T. Gonzalez<br>*Monte Carlo calculation of $In_{0.53}Ga_{0.47}As$ and InAs noise parameters* | A5.3 |
| | 12:20 – 12:40 | N. Mavredakis, M. Bucher, P. Habas, A. Acovic, R. Meyer<br>*Statistical compact modeling of low frequency noise in buried-channel, native, and standard MOSFETs* | A5.4 |
| | 12:40 – 13:00 | R. Kazakevičius, J. Ruseckas<br>*Influence of external potentials on heterogeneous diffusion processes* | A5.5 |
| | ***Session B5: Noise and fluctuations in biological systems (the Theatre Hall)***<br>*Chair: F. Danneville* | | |
| | 11:00 – 11:20 | D. Luchinsky, W. A. T. Gibby<br>*Relationship between selectivity and conductivity in narrow ion channels* | B5.1 |
| | 11:20 – 11:40 | I. Kh. Kaufman, W. A. T. Gibby, D. G. Luchinsky, P. V. E. McClintock,<br>*Effect of local binding on stochastic transport in ion channels* | B5.2 |
| | 11:40 – 12:00 | B. G. Vasallo, J. Mateos, T. González<br>*Stochastic model for ion shot noise in Hodgkin and Huxley neurons* | B5.3 |
| | ***Session B6: Noise in communications (the Theatre Hall)***<br>*Chair: J. Šikula* | | |
| | 12:00 – 12:20 | R. Mingesz, N. Bors, G. Vadai, Z. Gingl<br>*Performance and security analysis of the generalized Kirchhoff-Law-Johnson-Noise key exchange protocol* | B6.1 |
| | 12:20 – 12:40 | T. Stankovski, P. V. E. McClintock, A. Stefanovska<br>*Noise robustness of communications provided by coupling-function-encryption and dynamical Bayesian inference* | B6.2 |
| | 13:00 – 14:00 | *Lunch* | |

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| **June 21 (Wednesday)** | ***Session A6: Measurement techniques of noise and fluctuations (Aula Parva)***<br>*Chair: P. Sakalas* | | |
| | 14:10-14:40 | F. Danneville, M. Deng, S. Bouvot, J. A. Goncalves, A. Bossuet, T. Quémerais, S. Lépilliet, G. E. Lauga-Larroze, J-M Fournier, G. Ducournau, C. Gaquière, G. Dambrine, P. Chevalier, D. Gloria<br>*Noise parameters of SiGe HBTs in mmW range: towards a full in situ measurement extraction (Invited paper)* | A6.1 |
| | 14:40-15:00 | J. Dunsmore<br>*Noise figure verification of Y-factor and cold source methods (Including novel noise figure verification device)* | A6.2 |
| | 15:00-15:20 | G. Scandurra, G. Cannatà, G. Giusi, C. Ciofi<br>*A new approach to DC removal in high gain, low noise voltage amplifiers* | A6.3 |
| | 15:20-15:40 | G. Scandurra, G. Cannatà, G. Giusi, C. Ciofi<br>*A differential-input, differential output preamplifier topology for the design of ultra-low noise voltage amplifiers* | A6.4 |
| | 15:40-16:00 | M. Trawka, J. Smulko, T. Chludziński<br>*Portable measurement system for breath analysis by real-time fluctuation enhanced sensing method* | A6.5 |
| | ***Session B7: Noise and fluctuations in electronic devices (the Theatre Hall)***<br>*Chair: C. Claeys* | | |
| | 14:10-14:40 | M. Rudolph, C. Andrei, R. Doerner, S. A. Chevtchenko, W. Heinrich<br>*Noise in GaN HEMTs and circuits (Invited paper)* | B7.1 |

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| **June 21 (Wednesday)** | 14:40-15:00 | E. Šermukšnis, J. Liberis, A. Šimukovič, A. Matulionis, M. Barkat Ullah, M. Toporkov, V. Avrutin, Ü. Özgür, H. Morkoç<br>*Hot-electron noise spectroscopy for HFET channels* | B7.2 |
| | 15:00-15:20 | K. M. Sundqvist, L. B. Kish<br>*Memristors and thermal noise: Is the memristor indeed the missing passive circuit element?* | B7.3 |
| | 15:20-15:40 | G. Giusi, E. Sarnelli, M. Barra, A. Cassinese, G. Scandurra, K. Nakayama, C. Ciofi<br>*Low Frequency Noise Measurements in p-type Metal-Base Vertical Organic Transistors* | B7.4 |
| | 15:40-16:00 | M. S. Shur, G. Rupper, S. Rudin, S. L. Rumyantsev<br>*Low-frequency noise in terahertz plasmonic field effect transistors* | B7.5 |
| | 16:00-16:30 | *Coffee break* | |
| | 16:00-17:50 | ***Poster session*** | |
| | V. Holubec, T. Novotny<br>*Simple model of a quantum heat engine: Can noise-induced coherence enhance output power and/or efficiency?* | | P1 |
| | B.M.Grafov<br>*First passage theory for electrochemical stochastic diffusion* | | P2 |
| | R. M. Howard<br>*PDF evolution of a pulse train: a characteristic function and adaptive spline approach* | | P3 |
| | V. Gružinskis, P. Shiktorov, E. Starikov, H. Marinchio, C. Palermo, J. Torres and L. Varani<br>*Monte Carlo simulation of THz noise and generation under electron cooling in wurtzite GaN MOSFET at room temperature* | | P4 |
| | L. Ardaravičius, J. Liberis, E. Šermukšnis, J. Y. Kwak, H. A. Alsalman, M. G. Spencer<br>*Microwave noise in epitaxial graphene on SiC* | | P5 |

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| **June 21 (Wednesday)** | V. G. Litvinov, A. V. Ermachikhin, T. A. Kholomina, P. I. Lazarenko<br>*Investigation of $(Ge_2Sb_2Te_5)_{1-x}Bi_x$ thin films by low frequency noise spectroscopy* | P6 |
| | P. Sakalas, M. Zhang, M. Schroter, G. Yujing<br>*Noise parameters of advanced HEMTs at K, Ka, V and W bands: measurement peculiarities and modeling* | P7 |
| | D. Čibiraitė, M. Bauer, A. Lisauskas, V. Krozer, H. G. Roskos, A. Rämer, V. Krozer, W. Heinrich, S. Pralgauskaitė, J. Zdanevičius, J. Matukas, A. Lisauskas, M. Andersson, J. Stake<br>*Thermal noise-limited sensitivity of FET-based terahertz detectors* | P8 |
| | P. Shiktorov, E. Starikov, V. Gružinskis, C. Palermo, J. Torres, L. Varani<br>*Cooling effects in noise temperature spectrum* | P10 |
| | N. Dyakonova, D. Coquillat, D. But, C. Consejo, F. Teppe, W. Knap, L. Varani, S. Blin, V. Nodjiadjim, A. Konczykowska<br>*Reducing noise equivalent power in InP DHBT terahertz detector by biasing the collector* | P11 |
| | Ł. Ciura, A. Kolek, J. Wróbel, P. Martyniuk<br>*Low-frequency noise versus deep level transient spectroscopy of InAs/GaSb superlattice midwavelength infrared detectors* | P12 |
| | J. Glemža, J. Matukas, S. Pralgauskaitė, V. Palenskis<br>*Mid-infrared laser diodes investigation via low frequency noise spectroscopy and electrical derivative characteristics* | P13 |
| | G. Liu, A. A. Balandin, S. L. Rumyantsev, M. S. Shur, M. A. Bloodgood, T. T. Salguero<br>*Low-frequency noise in quasi-1D TaSe3 van der Waals nanowires* | P14 |
| | V. G. Litvinov, A. V. Ermachikhin and D. S. Kusakin<br>*Investigation of band diagram features of the DUWELL-structure InAs/InGaAs/GaAs by DLTS and low-frequency noise spectroscopy* | P15 |
| | K. Kiyono, Y. Miki, E. Watanabe, J. Hayano, Y. Yamamoto, T. Nomura<br>*Fast algorithm of long-range cross-correlation analysis using Savitzky-Golay detrending filter and its application to biosignal analysis* | P16 |

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| | R. Kumagai, M. Uchida<br>*Detrended fluctuation analysis of repetitive handwriting* | P17 |
| **June 21 (Wednesday)** | X. Chen, C.-H. Chen, M. J. Deen<br>*Short noise suppression factor for nano-scale MOSFETs working in the saturation region* | P18 |
| | A. Nikolaou, N. Mavredakis, M. Bucher, P. Habas, A. Acovic, R. Meyer<br>*Statistical analysis of 1/f noise in enclosed-gate N- and PMOS transistors* | P19 |
| | V. Palenskis, J. Glemža, J. Vyšniauskas, J. Matukas<br>*Carrier density and mobility fluctuations due to carrier retrapping process in homogeneous semiconductors* | P20 |
| | T. A. Kholomina, V. G. Litvinov, A. R. Semenov, A. V. Ermachikhin, A. D. Maslov<br>*Investigation and simulation of voltage-noise characteristics of semiconductor barrier structures* | P21 |
| | V. G. Litvinov, A. V. Ermachikhin, D. S. Kusakin, N. V. Vishnyakov, A. D. Maslov and A. R. Semenov<br>*Measurement complex to investigate electrophysical and noise characteristics of semiconductor micro- and nanostructures* | P22 |
| | S. Subramaniam, A. Petr, M. Ong Ing Ing<br>*Unified noise characterization technique for MOSFETs* | P23 |
| | G. Scandurra, A. Arena, G. Giusi, G. Cannatà, C. Ciofi<br>*Low frequency noise measurements as an early indicator of degradation for devices on plastic substrates subjected to mechanical stress* | P24 |
| | Y. Kutovyi, I. Zadorozhnyi, H. Hlukhova, M. Petrychuk, S. Vitusevich<br>*Low-frequency noise in Si NW FET for electrical biosensing* | P25 |
| | L. Skvarenina, R. Macku, P. Skarvada, A. Gajdos, J. Sikula<br>*Noise fluctuation changes related to edge deletion of thin-film Cu(In,Ga)$Se_2$ solar cells* | P26 |
| | M Fakhimi, M. R. Monazzam, M. Naderzadeh<br>*The role of parallel barriers in reducing noise pollution of trains* | P27 |

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| **June 21 (Wednesday)** | O. Kiprijanovič, L. Ardaravičius, S. Keršulis, Č. Paškevič, M. Senulis, Č. Šimkevičius, B. Vengalis<br>*Barkhausen noise and pulses during high voltage generation by piezoelectric ignition mechanism* | | P28 |
| | J.-H. Huh<br>*Noise-induced traveling waves in electroconvection* | | P29 |
| | S. Kumar, R. Kumar Jha, Aakanksha<br>*Characterization of supra-threshold stochastic resonance for uniform distributed signal with Laplacian and Gaussian noise* | | P30 |
| | Y. Yano, J.-H. Huh<br>*Pattern formations in electroconvection by colored noise* | | P31 |
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| | 17:30 – 19:30 | *Advisory committee dinner* | |

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| **June 22 (Thursday)** | **June 22 (Thursday)**<br>***Vilnius University***<br>*Universiteto st. 3, LT-01513 Vilnius*<br>*http://www.vu.lt/en/* | | |
| | ***Session A7: Noise and fluctuations in mesoscopic devices and nanostructures (Aula Parva)***<br>*Chair: C. Jungemann* | | |
| | 9:00 – 9:30 | S. L. Rumyantsev, M. S. Shur, G. Liu, A. A. Balandin<br>*Low frequency noise in 2D materials: graphene and $MoS_2$ (Invited paper)* | A7.1 |
| | 9:30 – 9:50 | K. E. Nagaev, P. P. Aseev<br>*Shot noise in the edge states of 2D topological insulators* | A7.2 |
| | 9:50 – 10:10 | N. Dashti, P. Samuelsson, J. Splettstoesser<br>Charge and heat noise in periodically driven mesoscopic systems: detection by frequency-dependent temperature and potential fluctuations | A7.3 |
| | 10:10 – 10:30 | E. Tikhonov<br>Andreev reflection in diffusive topological insulator with induced superconductivity | A7.4 |

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| | 10:30 – 10:50 | R. Hussein, G. Rastelli, W. Belzig<br>Electron transport and entanglement control in quantum dot Cooper-pair splitters | A7.5 |
| **June 22 (Thursday)** | ***Session B8: Noise and fluctuations in electronic devices (the Theatre Hall)***<br>*Chair: M. Rudolph* | | |
| | 9:00 – 9:20 | P. Sakalas, K. Yau, M. Schroter<br>*High frequency noise and harmonic distortion of 28 nm n and p type MOSFETs* | B8.1 |
| | 9:20 – 9:40 | T. Kawahara, S. Kumar Rupesh, Y. Ohno, K. Maehashi, K. Matsumoto, K. Okamoto, R. Utsunomiya, T. Matsuba<br>*Effects of the plasma process for self-aligned nanocarbon field-effect transistors* | B8.2 |
| | 9:40 – 10:00 | A. Szewczyk, Ł. Lentka, J. Smulko, P. Babuchowska, F. Béguin<br>*Measurements of flicker noise in supercapacitor cells* | B8.3 |
| | 10:00 – 10:20 | P. Gaubert, A. Kircher, H. Park, R. Kuroda, Sh. Sugawa, T. Goto, T. Suwa, A. Teramoto<br>*Atomically flat interface for noise reduction in SOI-MOSFETs* | B8.4 |
| | 10:20 – 10:40 | V. V. Korotyeyev, V. A. Kochelap, V. A. Sydoruk, S. A.Vitusevich<br>*Noise in the space-charged limited transport regime in planar GaN nanowires* | B8.5 |
| | ***Session C1: Other aspects of noise and fluctuation phenomena (the Room 238)***<br>*Chair: L. Kish* | | |
| | 9:00 – 9:20 | I. A. Khovanov, N. A. Khovanova<br>*Frequency Response of an Energy Harvester to Harmonic Noise: Towards Stochastic Frequency Response of Nonlinear Systems* | C1.1 |
| | 9:20 – 9:40 | G. Martini, F. G. Bruno<br>*True Random Numbers Generation from Stationary Stochastic Processes* | C1.2 |

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| | 9:40 – 10:00 | S. Kumar, A. Kumar, R. Kumar Jha<br>*Performance Analysis of Segmentation Using SSR under Different Noise Conditions* | C1.3 |
| **June 22 (Thursday)** | 10:00 – 10:20 | A. A. Podshivalov<br>*Fluctuations of Parameters in Seismic Electromagnetic Emission* | C1.4 |
| | 10:40 – 11:20 | *Coffee break* | |
| | ***Session A8: Theory of noise, fluctuations and stochastic processes (Aula Parva)***<br>*Chair: W. Belzig* | | |
| | 11:20 – 11:50 | T. Novotný, M. Žonda<br>*Voltage noise, multiple phase-slips, and switching rates in moderately damped Josephson junctions (Invited paper)* | A8.1 |
| | 11:50 – 12:20 | K. Kiyono<br>*Theory and applications of detrending-operation-based fractal-scaling analysis (Invited paper)* | A8.2 |
| | 12:20 – 12:40 | J. Łuczka, J. Spiechowicz, P. Hänggi<br>*Transient Anomalous Diffusion* | A8.3 |
| | 12:40 – 13:00 | S. Kumar, R. Kumar Jha<br>*Weak Signal Detection from Noisy Signal Using Stochastic Resonance with Particle Swarm Optimization Technique* | A8.4 |
| | ***Session B9: Noise as diagnostic tool, noise and device reliability (the Theatre Hall)***<br>*Chair: T. Gonzalez* | | |
| | 11:10 – 11:30 | L. He, H. Chen, D. D. Guo, L. N. Hu and Y. Qin, E. Simoen, C. Claeys, B. Kunert, N. Waldron, N. Collaert<br>*Deep traps in In0.3Ga0.7As nFinFETs studied by generation-recombination noise* | B9.1 |
| | 11:30 – 11:50 | J. G. Tartarin, D. Saugnon, O. Lazar, G. Maillot, L. Bary<br>*Understanding Traps Locations and Impact on AlGaN/GaN HEMT by LFN noise & transient measurements, and T-CAD simulations* | B9.2 |

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| **June 22 (Thursday)** | 11:50 – 12:10 | S.Beyne, K. Croes, I. De Wolf, Z. Tokei<br>*Demonstration of low-frequency noise measurements for studying electromigration mechanisms in advanced nano-scaled interconnects* | B9.3 |
| | 12:10 – 12:30 | D. Boudier, B. Cretu, E. Simoen, A. Veloso, N. Collaert<br>*On trap identification in triple-gate FinFETs and Gate-All-Around Nanowire MOSFETs using Low Frequency Noise spectroscopy* | B9.4 |
| | 12:30 – 12:50 | I. Zadorozhnyi, Y. Kutovyi, H. Hlukhova, M. Petrychuk, S. Vitusevich<br>*Hooge's parameter in Si NW FET with different widths* | B9.5 |
| | ***Session C2: Noise and fluctuations in materials (the Room 238)***<br>*Chair: A.Lisauskas* | | |
| | 11:10 – 11:30 | H. Slimi, A. Achahour, G. Leroy, N. Waldhoff, B. Duponchel, A. Barhoumi, S. Guermazi, M. Dewitte, K. Blary, L.K.J. Vandamme<br>*Effects of thickness on 1/f noise Co and In co-doped ZnO* | C2.1 |
| | 11:30 – 11:50 | A. Achahour, G. Leroy, N. Waldhoff, B. Ayachi, K. Blary, J.-P. Vilcot, L.K.J. Vandamme<br>*1/f noise as function of thickness in Al-doped ZnO thin film* | C2.2 |
| | ***Session C3: Noise and fluctuations in electronic devices (the Room 238)***<br>*Chair: F. Danneville* | | |
| | 11:50 – 12:10 | M. Rzin, B. Guillet, L. Méchin, P. Gamarra, C. Lacam, F. Medjdoub, J-M. Routoure<br>*Low frequency noise in In-Situ SiN passivated InAlGaN/GaN HEMTs* | C3.1 |
| | 12:10 – 12:30 | B. Sagnes, F. Pascal, M. Seif, A. Hoffmann, S. Haendler, P. Chevalier, D. Gloria<br>*Low Frequency Noise in advanced 55 nm BiCMOS SiGeC Heterojunction Bipolar Transistors : impact of collector doping* | C3.2 |

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| | 12:30 – 12:50 | M. S. Gupta<br>*Thermionic Emission Noise Model of Field Effect Transistors* | C3.3 |
| | 13:00 – 13:15 | *Lunch in a box* | |
| | 13:00 – 18:00 | ***Excursion*** | |
| | 19:00 – 22:00 | ***Gala dinner***<br>***National Museum –***<br>***Palace of the Grand Dukes of Lithuania***<br>*Katedros sq. 4, LT-01143 Vilnius*<br>*http://www.valdovurumai.lt/en* | |

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| **June 23 (Friday)** | **June 23 (Friday)**<br>***Vilnius University***<br>*Universiteto st. 3, LT-01513 Vilnius*<br>*http://www.vu.lt/en/* | | |
| | ***Session A9: Noise in circuits and systems (Aula Parva)***<br>*Chair: P. Sakalas* | | |
| | 9:00 – 9:20 | M. Coustans, F. Jazaeri, Ch. Enz, F. Krummenacher, M. Kayal, R. Meyer, A. Acovic, P. Habaš, J. Lolivier, M. Bucher<br>*Variability of low frequency noise and mismatch in CORNER DOPED and standard CMOS technology* | A9.1 |
| | 9:20 – 9:40 | F. Chicco, R. Capoccia, A. Pezzotta, Ch. Enz<br>*Linear Analysis of Phase Noise in LC oscillators in Deep Submicron CMOS Technologies* | A9.2 |
| | 9:40 – 10:00 | A. Birbas, E. Housos, N.Tzanis, A. Papalexopoulos<br>*Modeling of LF fluctuations induced to the power grid with renewable generation* | A9.3 |
| | 10:00 – 10:20 | M. Sakalas, N. Joram, F. Ellinger<br>*A Fully Balanced ultra-wide band Mixer MMIC with Multi-Tanh Triplet Input for High Dynamic Range Radar Receiver Systems* | A9.4 |

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| **June 23 (Friday)** | ***Session B10: Noise as diagnostic tool, noise and device reliability (the Theatre Hall)***<br>*Chair: S.Pralgauskaitė* | | |
| | 9:00 – 9:20 | R. Mingesz, G. Makan, B. Balogh, G. Vadai, Z. Gingl<br>*IoT framework for fluctuation enhanced sensing* | B10.1 |
| | 9:20 – 9:40 | T. Kuparowitz, V. Sedlakova, P. Sedlak, J. Sikula<br>*Low frequency noise of electrochemical power sources* | B10.2 |
| | 9:40 – 10:00 | G. Cywiński, I. Yahniuk, K. Szkudlarek, P. Kruszewski, G. Muzioł, C. Skierbiszewski, A. Khachapuridze, W. Knap, D. But, S. L. Rumyantsev,<br>*Noise limitations of GaN lateral Schottky Diodes for THz applications* | B10.3 |
| | 10:00 – 10:20 | I. Zadorozhnyi, H. Hlukhova, Y. Kutovyi, M. Petrychuk, V. Sydoruk, V. Handziuk, S. Vitusevich<br>*Analysis of Charge States in GaN-Based Nanoribbons Using Transport and Noise Studies* | B10.4 |
| | 10:20 – 11:00 | *Coffee break* | |
| | ***Closing (Aula Parva)***<br>*Chairs: P. Sakalas, S. Pralgauskaitė* | | |
| | 11:00 – 11:45 | J. Dunsmore<br>*From Zero to Infinity: Uncertainty and Accuracy in Noise Figure Measurements (Plenary paper)* | A02 |
| | 11:45 – 12:30 | ***Closing ceremony*** | |