

Curriculum Vitae

MIKKEL EJRNAES

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Dr. Mikkel Ejrnaes (...) was born the ... in ... (...) and is now a permanent first researcher at the CNR since 2023 currently responsible for the nanofabrication facility of the CNR-SPIN institute.

Research topics

The scientific work Mikkel Ejrnaes has performed has been focused on non-equilibrium phenomenon in superconducting nanostructures along with their physical properties and interaction with light, covering all aspects in this context e.g.:

- The role of the superconducting material from conventional strong-coupling to superconductor-ferromagnetic multilayers and high-temperature superconductors
- The role of the connectivity of the superconductor on the nanoscale ranging from a simply connected region to advanced geometries exploiting parallel nanowires e.g. non-simply connected superconductors.
- Non-equilibrium phenomenon ranging from picosecond spontaneous fluctuations to the nanosecond dynamics of a moving normal-metal/superconductor phase boundary.
- Light – Superconductor interaction ranging from single photon detection with unconventional detectors design on the nanoscale to timing precision of the detection mechanism.
- Detection of quantum states of light with superconducting photon number resolving detectors.

Awards

Mikkel Ejrnaes was awarded the prize for the best communication at the XCVIII National Congress of the Italian Physics Society in the section of applied physics.

Employment Experience

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- **2023-Current**, Consiglio Nazionale delle Ricerche (CNR), **Italy**
Staff First Researcher
 - **2009-2022**, Consiglio Nazionale delle Ricerche (CNR), **Italy**
Staff Researcher
 - **1st July 2009 – 15th Dec 2009**, Scientific collaborator at the CNR Institute of Cybernetics, **Italy**
Supervisor: **Dr. Roberto Cristiano**
 - **2008 – 2009**, Scientific collaborator at the CNR Institute of Cybernetics, **Italy**
Supervisor: **Dr. Sergio Pagano**
 - **2006 – 2008**, Scientific collaborator at the CNR Institute of Cybernetics, **Italy**
 - **2005 – 2006**, Scientific consultant for Telecom Italia S.p.A.
 - **2002 – 2005**, Fellow of the Italian national institute for nuclear physics (INFN), **Italy**
Supervisor: **Dr. Roberto Cristiano**
 - **2001 – 2002**, Fellow of the Italian national institute for nuclear physics (INFN), **Italy**
Supervisor: **Dr. Sergio Pagano**
 - **1st July 1999 – 31st Dec 1999**, Faculty research assistant at the University of Maryland, **USA**
Supervisors: **Prof. Fred Wellstood and Prof. Christopher R. Lobb**

- **18th June 1996 – 30th Aug 1996**, Summer student at the European organization for nuclear research (CERN), **Swiss Confederation**
Supervisor: **Dr. Abhay Deshpande**

Education

- **1997-2001**, The Technical University of Denmark (DTU), **Denmark**
Ph.D. in Physics
- **1992-1997**, The Technical University of Denmark (DTU), **Denmark**
Master in Applied Physics

Publications

1. “Single photon detection up to 2 μm in pair of parallel microstrips based on NbRe ultrathin films”
C. Cirillo, M. Ejrnaes, P. Ercolano, C. Bruscino, A. Cassinese, D. Salvoni, C. Attanasio, G.P. Pepe, L. Parlato
Scientific Reports, Vol. 14, 20345 (2024); doi: 10.1038/s41598-024-66991-1
2. “Reduction of $g_2(0)$ value in heralded spontaneous parametric down-conversion sources using photon number resolving detectors [Використання детекторів з роздільною здатністю кількості фотонів для зменшення значення $g_2(0)$ у джерелах спонтанного параметричного розсіювання.]”
C. Bruscino, M. Ejrnaes, P. Ercolano, D. Salvoni, C. Zhang, H. Li, L. You, L. Parlato, G.P. Pepe
Fizika Nizkikh Temperatur, Vol. 50, pp. 27 – 31 (2024);
3. “Application of a superconductor detector (SNSPD) for infrared atmospheric lidar measurements”
S. Spinosa, P. Ercolano, S. Amoruso, S.M.J. Bukhari, R. Damiano, M. Ejrnaes, H. Li, M. Manzo, L. Parlato, G.P. Pepe, D. Salvoni, A. Sannino, L. You, A. Boselli
Infrared Physics and Technology, Vol. 141, 105468 (2024); doi: 10.1016/j.infrared.2024.105468
4. “Vortex Motion Study of Oxidised Superconducting NbRe Microstrips”
X. Chen, C. Cirillo, M. Ejrnaes, L. Parlato, G.P. Pepe, C. Attanasio, S.J. Van Der Molen, M.J.A. De Dood
IEEE Transactions on Applied Superconductivity, Vol. 34, 1100805 (2024); doi: 10.1109/TASC.2023.3340641
5. “Superconducting Nanostrip Photon-Number-Resolving Detector as an Unbiased Random Number Generator”
P. Ercolano, M. Ejrnaes, C. Bruscino, S.M.J. Bukhari, D. Salvoni, C. Zhang, J. Huang, H. Li, L. You, L. Parlato, G.P. Pepe
IEEE Transactions on Quantum Engineering, Vol. 5, 4100808 (2024); doi: 10.1109/TQE.2024.3432070
6. “Investigation of dark count rate in NbRe microstrips for single photon detection”
P. Ercolano, C. Cirillo, M. Ejrnaes, F. Chianese, D. Salvoni, C. Bruscino, R. Satariano, A. Cassinese, C. Attanasio, G.P. Pepe, L. Parlato L.
Superconductor Science and Technology, Vol. 36, 105011 (2023); doi: 10.1007/s10909-022-02821-w
7. “Exploring NbRe for superconducting microstrip single photon detectors: Fabrication and resistance behavior”
P. Ercolano, C. Cirillo, R. Satariano, C. Bruscino, D. Salvoni, M. Ejrnaes, A. Cassinese, L. Parlato, C. Attanasio, G.P. Pepe
Nuovo Cimento della Societa Italiana di Fisica C, Vol. 47, 270 (2024); doi: 10.1393/ncc/i2024-24270-1
8. “Reduction of $g_2(0)$ value in heralded spontaneous parametric down-conversion sources using photon number resolving detectors”
C. Bruscino, M. Ejrnaes, P. Ercolano, D. Salvoni, C. Zhang, H. Li, L. You, L. Parlato, G.P. Pepe
Low Temperature Physics, Vol. 50, pp. 24 – 28 (2024); doi: 10.1063/10.0023887
9. “Characterization of quasiparticle relaxation times in microstrips of NbReN for perspective applications for superconducting single-photon detectors”
Z. Makhdoumi Kakhaki, A. Leo, A. Spuri, M. Ejrnaes, L. Parlato, G.P. Pepe, F. Avitabile, A. Di Bernardo, A. Nigro, C. Attanasio, C. Cirillo
Materials Science and Engineering: B, Vol. 304, 117376 (2024); doi: 10.1016/j.mseb.2024.117376

10. "Decoy-state quantum key distribution over long-distance optical fiber"
G. Guarda, D. Ribezzo, D. Salvoni, C. Brusino, P. Ercolano, M. Ejrnaes, L. Parlato, C. Zhang, H. Li, L. You, I. Vagniluca, C. De Lazzari, T. Occhipinti, G.P. Pepe, A. Zavatta, D. Bacco
Proceedings of SPIE - The International Society for Optical Engineering, Vol. 12911, 129110D (2024); doi: 10.1117/12.3003698
11. "BB84 decoy-state QKD protocol over long-distance optical fiber"
G. Guarda, D. Ribezzo, D. Salvoni, C. Brusino, P. Ercolano, M. Ejrnaes, L. Parlato, C. Zhang, H. Li, L. You, I. Vagniluca, C. De Lazzari, T. Occhipinti, G.P. Pepe, A. Zavatta, D. Bacco
International Conference on Transparent Optical Networks, (2023); doi: 10.1109/ICTON59386.2023.10207397
12. "High Performance Superconducting Nanowire Single Photon Detectors for QKD Applications"
C. Brusino, P. Ercolano, D. Salvoni, M. Di Giancamillo, C. Zhang, M. Ejrnaes, H. Li, L. You, L. Parlato, M. Martinelli, G.P. Pepe
IEEE Transactions on Applied Superconductivity, Vol. 34, 2200205 (2024); doi: 10.1109/TASC.2024.3355878
13. "Superconducting PNR Detector for Photon Sources Characterization"
P. Ercolano, D. Salvoni, C. Brusino, M. Di Giancamillo, C. Zhang, M. Ejrnaes, J. Huang, H. Li, L. You, L. Parlato, M. Martinelli, G.P. Pepe
IEEE Transactions on Applied Superconductivity, Vol. 34, 2200105 (2024); doi: 10.1109/TASC.2024.3353709
14. "Optimal configuration of a superconducting photon number resolving detector"
P. Ercolano, D. Salvoni, C. Brusino, M. Di Giancamillo, C. Zhang, M. Ejrnaes, J. Huang, H. Li, L. You, L. Parlato, M. Martinelli, G.P. Pepe
Proceedings of SPIE - The International Society for Optical Engineering, Vol. 12570, 125700J (2023); doi: 10.1117/12.2668928
15. "Investigation of NbRe for superconducting microstrips single photon detectors"
L. Parlato, C. Cirillo, D. Salvoni, C. Brusino, P. Ercolano, F. Chianese, R. Satariano, A. Cassinese, C. Attanasio, G.P. Pepe, M. Ejrnaes
Proceedings of SPIE - The International Society for Optical Engineering, Vol. 12570, 1257008 (2023); doi: 10.1117/12.2668881
16. "Time Binning Method for Nonpulsed Sources Characterization with a Superconducting Photon Number Resolving Detector"
P. Ercolano, C. Brusino, D. Salvoni, C. Zhang, M. Ejrnaes, J. Huang, H. Li, L. You, L. Parlato, G.P. Pepe
IEEE Transactions on Quantum Engineering, Vol. 4, 4100609 (2023); doi: 10.1109/TQE.2023.3316797
17. "Coherent Quantum Network of Superconducting Qubits as a Highly Sensitive Detector of Microwave Photons for Searching of Galactic Axions"
C. Gatti, M. Affronte, A. Balanov, C. Bonizzoni, G. Brida, F. Chiariello, N. Chikhi, G. Coda, A. D'Elia, D. Di Gioacchino, E. Enrico, I. Eremin, M. Ejrnaes, E. Il'ichev, L. Fasolo, M. Fistul, A. Ghirri, A. Greco, C. Ligi, G. MacCarone, A. Meda, P. Navez, G. Oelsner, M. Rajteri, A. Rettaroli, B. Ruggiero, S. Savell'ev, P. Silvestrini, S. Tocci, A. Ustinov, P. Vanacore, A. Zagoskin, M. Lisitskiy.
IEEE Transactions on Applied Superconductivity, Vol. 33, 1501705 (2023); doi: 10.1109/TASC.2023.3263807
18. "Single photon detection in NbRe superconducting microstrips"
M. Ejrnaes, C. Cirillo, D. Salvoni, F. Chianese, C. Brusino, P. Ercolano, A. Cassinese, C. Attanasio, G.P. Pepe, L. Parlato.
Applied Physics Letters, Vol. 121, 262601 (2022); doi: 10.1063/5.0131336
19. "Investigation of Superconducting Molybdenum Silicide Nanostrips and Microstrips for Single Photon Detectors"
L. Parlato, D. Salvoni, M. Ejrnaes, F. Mattioli, A. Gaggero, F. Martini, D. Massarotti, D. Montemurro, R. Satariano, R. Ferraiuolo, F. Chianese, F. Tafuri, R. Cristiano, G.P. Pepe.
Journal of Low Temperature Physics, Vol. 209, pp. 1151-1157 (2022); doi: 10.1007/s10909-022-02821-w
20. "Activation Energies in MoSi/Al Superconducting Nanowire Single-Photon Detectors"

D. Salvoni, M. Ejrnaes, A. Gaggero, F. Mattioli, F. Martini, H.G. Ahmad, L. Di Palma, R. Satariano, X.Y. Yang, L. You, F. Tafuri, G.P. Pepe, D. Massarotti, D. Montemurro, L. Parlato.

Physical Review Applied, Vol. 18, 014006 (2022); doi: 10.1103/PhysRevApplied.18.014006

21. “Large Area SNSPD for Lidar Measurements in the Infrared”

D. Salvoni, L. Parlato, M. Ejrnaes, F. Mattioli, A. Gaggero, F. Martini, A. Boselli, A. Sannino, S. Amoruso, R. Cristiano, G.P. Pepe.

IEEE Transactions on Applied Superconductivity, Vol. 32, 2200304 (2022); doi: 10.1109/TASC.2022.3146099

22. “Superconducting Microbridges for large area single photon detectors”

D. Salvoni, L. Parlato, C. Federico, M. Ejrnaes, C. Bruscolo, P. Ercolano, R. Satariano, C. Cirillo, A. Cassinese, A. Carmine, G.P. Pepe.

IEEE 15th Workshop on Low Temperature Electronics, WOLTE 2022 - Conference Proceedings (2022); doi: 10.1109/WOLTE55422.2022.9882683

23. “Demonstration of Single Photon Detection in Amorphous Molybdenum Silicide / Aluminium Superconducting Nanostrip”

D. Salvoni, L. Parlato, M. Ejrnaes, F. Mattioli, A. Gaggero, F. Martini, G. Ausanio, D. Massarotti, D. Montemurro, H.G. Ahmad, L. Di Palma, F. Tafuri, R. Cristiano, G.P. Pepe.

IEEE Instrumentation and Measurement Magazine, Vol. 24, 9491006, pp. 69-74 (2021); doi: 10.1109/MIM.2021.9491006

24. “Lidar measurement of clouds profile with a Superconducting Nanowire Single Photon Detector”

D. Salvoni, A. Sannino, L. Parlato, S. Amoruso, G.P. Pepe, A. Boselli, M. Ejrnaes, X. Wang, R. Cristiano, C. Zhang, L. You.

IEEE 14th Workshop on Low Temperature Electronics, WOLTE 2021 – Proceedings (2021); doi: 10.1109/WOLTE49037.2021.9555454

25. “Demonstration of atmospheric lidar measurement in the infrared wavelength domain with a superconducting nanowire single photon detector”

D. Salvoni, A. Boselli, A. Sannino, L. Parlato, M. Ejrnaes, C. Zhang, L. You, X. Wang, S. Amoruso, G.P. Pepe.

Chemical Engineering Transactions, Vol. 84, pp. 175-180 (2021); doi: 10.3303/CET2184030

26. “Dark counts double switching rates in NbTiN Superconducting Nanowire Single Photon Detectors”

D. Salvoni, M. Ejrnaes, L. Parlato, X.Y. Yang, L.X. You, Z. Wang, G.P. Pepe, R. Cristiano.

Journal of Physics: Conference Series, Vol. 1559, 012016 (2020); doi: 10.1088/1742-6596/1559/1/012016

27. “Progress towards innovative and energy efficient logic circuits”

S. Pagano, G. Salina, A. Napoli, C. Attanasio, C. Barone, F. Bobba, G. Carapella, A. Leo, A. Nigro, R. Cristiano, M. Ejrnaes, M. Lisitskiy, N. Martucciello, G.P. Pepe, L. Parlato, M. Cirillo, M. Lucci, V. Merlo, A. Messina, B. Militello.

Journal of Physics: Conference Series, Vol. 1559, 012009 (2020); doi: 10.1088/1742-6596/1559/1/012009

28. “Ultrathin superconducting NbRe microstrips with hysteretic voltage-current characteristic”

C. Cirillo, M. Caputo, L. Parlato, M. Ejrnaes, D. Salvoni, R. Cristiano, G.P. Pepe, C. Attanasio.

Low Temperature Physics, Vol. 46, pp. 379-382 (2020); doi: 10.1063/10.0000871

29. “The Role of Multiple Fluctuation Events in NbN and NbTiN Superconducting Nanostrip Single-Photon Detectors”

L. Parlato, D. Salvoni, M. Ejrnaes, D. Massarotti, R. Caruso, R. Satariano, F. Tafuri, X.Y. Yang, L. You, Z. Wang, G.P. Pepe, R. Cristiano.

Journal of Low Temperature Physics, Vol. 199, pp. 6-11 (2020); doi: 10.1007/s10909-020-02395-5

30. “Ultrathin superconducting NbRe microstrips with hysteretic voltage-current characteristic”

C. Cirillo, M. Caputo, L. Parlato, M. Ejrnaes, D. Salvoni, R. Cristiano, G. P. Pepe, C. Attanasio

Fizika Nizkikh Temperatur, Vol. 46, pp. 457-461 (2020); doi: 10.1063/10.0000871

31. “13th Workshop on Low Temperature Electronics, WOLTE-13”

R. Cristiano, M. Ejrnaes, P. Lucignano, L. Parlato
Journal of Physics: Conference Series, Vol. 1182(1), 011001, (2019); doi: 10.1088/1742-6596/1182/1/011001

32. “Lidar techniques for a SNSPD-based measurement”
D. Salvoni, M. Ejrnaes, L. Parlato, A. Sannino, A. Boselli, G. P. Pepe, R. Cristiano, X. Wang
Journal of Physics: Conference Series, Vol. 1182(1), 012014 (2019); doi: 10.1088/1742-6596/1182/1/012014
33. “Dark counts double switching rates in NbTiN Superconducting Nanowire Single Photon Detectors”
D. Salvoni, M. Ejrnaes, L. Parlato, X. Y. Yang, L. X. You, Z. Wang, G. P. Pepe, R. Cristiano
Journal of Physics: Conference Series, Vol. 1559(1), 012016 (2019); doi: 10.1088/1742-6596/1559/1/012016
34. “Progress towards innovative and energy efficient logic circuits”
S. Pagano, G. Salina, A. Napoli, C. Attanasio, C. Barone, F. Bobba, G. Carapella, A. Leo, A. Nigro, R. Cristiano, M. Ejrnaes, M. Lisitskiy, N. Martucciello, G. P. Pepe, L. Parlato, M. Cirillo, M. Lucci, V. Merlo, A. Messina, B. Militello
Journal of Physics: Conference Series, Vol. 1559(1), 012009 (2019); doi: 10.1088/1742-6596/1559/1/012009
35. “Superconductor to resistive state switching by multiple fluctuation events in NbTiN nanostrips”
M. Ejrnaes, D. Salvoni, L. Parlato, D. Massarotti, R. Caruso, F. Tafuri, X. Y. Yang, L. You, Z. Wang, G. P. Pepe and R. Cristiano
Scientific Reports, Vol. 9, 8053 (2019); doi: 10.1038/s41598-019-42736-3
36. “Integrated Joule switches for the control of current dynamics in parallel superconducting strips”
A. Casaburi, R. M. Heath, R. Cristiano, M. Ejrnaes, N. Zen, M. Ohkubo and R. H. Hadfield
Superconductor Science and Technology, Vol. 31, 06LT01 (2018); doi: 10.1088/1361-6668/aabcf9
37. “Observation of dark pulses in 10nm thick YBCO nanostrips presenting hysteretic current voltage characteristics”
M. Ejrnaes, L. Parlato, R. Arpaia, T. Bauch, F. Lombardi, R. Cristiano, F. Tafuri and G. P. Pepe
Superconductor Science and Technology, Vol. 30, 12LT02 (2017); doi: 10.1088/1361-6668/aa94b9
38. “Phase-Slip Phenomena in Proximitized NbN/NiCu Superconducting Nanostrips”
L. Parlato, M. Ejrnaes, R. Cristiano, H. Myoren, G. P. Pepe
Journal of Superconductivity and Novel Magnetism, Vol. 30, pp 3403–3407 (2017); doi: 10.1007/s10948-017-4247-6
39. “Proposal for a Nanoscale Superconductive Memory”
S. Pagano, N. Martucciello, F. Bobba, G. Carapella, C. Attanasio, C. Cirillo, R. Cristiano, M. Lisitskiy, M. Ejrnaes, G. P. Pepe and L. Parlato
IEEE Transactions on Applied Superconductivity, Vol. 27, 1801004 (2017); doi: 10.1109/TASC.2017.2647903
40. “Investigation of dark counts in innovative materials for superconducting nanowire single-photon detector applications”
L. Parlato, M. Ejrnaes, U. Nasti, R. Arpaia, T. Taino, T. Bauch, H. Myoren, Roman Sobolewski, F. Tafuri, F. Lombardi, R. Cristiano, G. Pepe
Proc. SPIE 10229, Photon Counting Applications 2017, 102290I; doi: 10.1117/12.2267647
41. “Superconductor/Ferromagnet Nanowires for Optical Photon Detection”
R. Cristiano, L. Parlato, U. Nasti, M. Ejrnaes, H. Myoren, T. Taino, R. Sobolewski and G. P. Pepe
IEEE Transactions on Applied Superconductivity, Vol. 26, 2200104 (2016); doi: 10.1109/TASC.2016.2521579
42. “Thermal fluctuations in superconductor/ferromagnet nanostrips”
U. Nasti, L. Parlato, M. Ejrnaes, R. Cristiano, T. Taino, H. Myoren, R. Sobolewski and G. Pepe
Physica Review B, Vol. 92, 014501 (2015); doi: 10.1103/PhysRevB.92.014501
43. “Experimental evidence of photoinduced vortex crossing in current carrying superconducting strips”

A. Casaburi, R. M. Heath, M. Ejrnaes, C. Nappi, R. Cristiano and R. H. Hadfield
Physica Review B, Vol. 92, 214512 (2015); doi: 10.1103/PhysRevB.92.214512

44. “Superconducting nano-strip particle detectors”
R. Cristiano, M. Ejrnaes, A. Casaburi, N. Zen and M. Ohkubo
Superconductor Science and Technology, Vol. 28, 124004 (2015); doi: 10.1088/0953-2048/28/12/124004
45. “High-temperature superconducting nanowires for photon detection”
R. Arpaia, M. Ejrnaes, L. Parlato, F. Tafuri, R. Cristiano, D. Golubev, R. Sobolewski, T. Bauch, F. Lombardi and G.P. Pepe
Physica C, Vol. 509, pp. 16-21 (2015); doi: 10.1016/j.physc.2014.09.017
46. “Parallel superconducting strip-line detectors: reset behaviour in the single-strip switch regime”
A. Casaburi, R. M. Heath, M. G. Tanner, R. Cristiano, M. Ejrnaes, C. Nappi and R. H. Hadfield
Superconductor Science and Technology, Vol. 27, 044029 (2014); doi: 10.1088/0953-2048/27/4/044029
47. “Highly homogeneous YBCO/LSMO nanowires for photoresponse experiments”
R. Arpaia, M. Ejrnaes, L. Parlato, R. Cristiano, M. Arzeo, T. Bauch, S. Nawaz, F. Tafuri, G. P. Pepe and F. Lombardi
Superconductor Science and Technology, Vol. 27, 044027 (2014); doi: 10.1088/0953-2048/27/4/044027
48. “Proximitized NbN/NiCu nanostripes as new promising superconducting single-photon detectors”
G. P. Pepe, L. Parlato, C. de Lisio, C. Bonavolontà, M. Valentino, R. Cristiano, M. Ejrnaes, H. Myoren and R. Sobolewski
Proc. of SPIE, Vol. 8773, 87730G (2013); doi: 10.1117/12.2020844
49. “Current distribution in a parallel configuration superconducting strip-line detector”
A. Casaburi, R. M. Heath, M. G. Tanner, R. Cristiano, M. Ejrnaes, C. Nappi and R. H. Hadfield
Applied Physics Letters, Vol. 103, 013503 (2013); doi: 10.1063/1.4813087
50. “A 2 x 2 mm² superconducting strip-line detector for high-performance time-of-flight mass spectrometry”
A. Casaburi, E. Esposito, M. Ejrnaes, K. Suzuki, M. Ohkubo, S. Pagano and R. Cristiano
Superconductor Science and Technology, Vol. 25, 115004 (2012); doi: 10.1088/0953-2048/25/11/115004
51. “Operation of superconducting nano-stripline detector (SSLD) mounted on cryogen-free cryostat”
N. Zen, K. Suzuki, S. Shiki, M. Ukibe, A. Casaburi, M. Ejrnaes, R. Cristiano and M. Ohkubo
Physics Procedia, Vol. 27, pp. 356-359 (2012); doi: 10.1016/j.phpro.2012.03.484
52. “Large area single photon detectors based on parallel configuration NbN nanowires”
F. Mattioli, M. Ejrnaes, A. Gaggero, A. Casaburi, R. Cristiano, S. Pagano and R. Leoni
Journal of Vacuum Science and Technology B, Vol. 30, 031204 (2012); doi 10.1116/1.3699042
53. “Superconducting Molecule Detectors Overcoming Fundamental Limits of Conventional Mass Spectrometry”
M. Ohkubo, M. Ukibe, S. Shiki, K. Suzuki, K. Chiba, N. Zen, T. Kitazume, M. Koike, S. Miki, Z. Wang, M. Ejrnaes, A. Casaburi and R. Cristiano
Journal of Low Temperature Physics, Vol. 167, pp. 943-948 (2012); doi 10.1007/s10909-012-0542-6
54. “Parallel Superconducting Strip-Line Detectors for Time-of-flight Mass Spectrometry”
R. Cristiano, A. Casaburi, E. Esposito, M. Ejrnaes, S. Pagano, K. Suzuki, N. Zen and M. Ohkubo
Journal of Low Temperature Physics, Vol. 167, pp. 979-984 (2012); doi 10.1007/s10909-012-0531-9
55. “Characterization of superconducting pulse discriminators based on parallel NbN nanostriplines”
M. Ejrnaes, A. Casaburi, R. Cristiano, N. Martucciello, F. Mattioli, A. Gaggero, R. Leoni, J.-C. Villégier, and S. Pagano
Superconductor Science and Technology, Vol. 24, 035018 (2011); doi: 10.1088/0953-2048/24/3/035018

56. "Thicker, more efficient superconducting strip-line detectors for high throughput macromolecules analysis"
A. Casaburi, M. Ejrnaes, N. Zen, M. Ohkubo, S. Pagano and R. Cristiano
Applied Physics Letters, Vol. 98, 023702 (2011); doi: 10.1063/1.3537808
57. "Time-resolved observation of fast hotspot dynamics in superconducting nanowires"
M. Ejrnaes, A. Casaburi, F. Mattioli, R. Leoni, S. Pagano, and R. Cristiano
Physical Review B, Vol. 81, 132503 (2010); doi: 10.1103/PhysRevB.81.132503
58. "Strong critical current density enhancement in NiCu/NbN superconducting nanostripes for optical detection"
N. Marrocco, G. P. Pepe, A. Capretti, L. Parlato, V. Pagliarulo, G. Peluso, A. Barone, R. Cristiano, M. Ejrnaes, A. Casaburi, N. Kashiwazaki, T. Taino, H. Myoren, and R. Sobolewski
Applied Physics Letters, Vol. 97, 092504 (2010); doi: 10.1063/1.3479529
59. "Reset dynamics and latching in niobium superconducting nanowire single-photon detectors"
A. J. Annunziata, O. Quaranta, D. F. Santavicca, A. Casaburi, L. Frunzio, M. Ejrnaes, M. J. Rooks, R. Cristiano, S. Pagano, A. Frydman, and D. E. Prober
Journal of Applied Physics, Vol. 108, 084507 (2010); doi: 10.1063/1.3498809
60. "Characterization of parallel superconducting nanowire single photon detectors"
M. Ejrnaes, A. Casaburi, O. Quaranta, S. Marchetti, A. Gaggero, F. Mattioli, R. Leoni, S. Pagano, and R. Cristiano
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