

Curriculum vitae

Barinov Alexey

+39 3315791778 mobile phone

+39 0403758341 Spectromicroscopy beamline of Elettra-Sincrotrone Trieste

+39 0403758032 office

Alexey.Barinov@elettra.trieste.it

Personal Data

Date and	12.03.1975
Place of birth	Ryazan, Russia
Nationality	Russian
Marital Status	married

Education and working experience

Apr. 2008 – now Coordinator of Spectromicroscopy beamline at ELETTRA , Sincrotrone Trieste

<http://www.elettra.trieste.it/elettra-beamlines/spectromicroscopy.html>

Feb 2002 – Mar 2008 Beamline scientist at ESCA microscopy beam line of ELETTRA

October 24, 2001 Ph.D. on Condensed Matter Physics at RRC Kurchatov Institute on the subject “Photoemission microscopy of Metal/GaN interfaces”.

July 2000 - Dec 2001 Fellowship under the grant EW14, Sincrotrone, Trieste

Feb 1999 - June 2000 Fellowship “Formazione personale su linee di luce, stazioni sperimentali” Legge 212/92. Sincrotrone, Trieste

July 1998 - Sept 2001 Post graduate courses at Moscow Institute of Physics and Technology

June 1998 Diploma in Physics at Moscow Institute of Physics and Technology (*summa cum laude*)

Sept 1995-June 1998

Diploma research work “Optical investigations of fluorinated fullerenes” and specialization in the Department of Condensed Matter Physics of RRC Kurchatov Institute

Sept 1992-June 1998

Study at Moscow Institute of Physics and Technology at the Department of General and Applied Physics

Professional experience

Angle resolved photoemission; photoemission microscopy (SPEM, LEEM, XPEEM); assistance in experiments of users working in different fields of surface and material science at Spectromicroscopy and Escamicroscopy beamlines of Elettra; user of Nanospectroscopy, Superesca beamlines at Elettra and high pressure XPS beamline at Bessy; Programming in LavView, LUA, IgorPro; electronic optics simulations.

Current research interests

Electronic phase separation, role of electron confinement effects on surface reactivity of self assembled metallic films, time resolved measurement techniques.

Languages

Russian - mother tongue

English - fluent

Italian - fluent

Articles in journals (H=19)

1. Speller, S.C., Dudin, P., Fitzgerald, S., Hughes, G.M., Kruska, K., Britton, T.B., Krzton-Maziopa, A., Pomjakushina, E., Conder, K., **Barinov A.**, Grovenor, C.R.M. "High-resolution characterization of microstructural evolution in $\text{Rb}_x\text{Fe}_{2-y}\text{Se}_2$ crystals on annealing", **Physical Review B** **90**, 024520 (2014).
2. Bendele, M., **Barinov, A.**, Joseph, B., Innocenti, D., Iadecola, A., Bianconi, A., Takeda, H., Mizuguchi, Y., Takano, Y., Noji, T., hatakeda, T., Koike, Y., Horio, M., Fujimori, A., Ootsuki, D., Mizokawa, T., Saini, N.L. "Spectromicroscopy of electronic phase separation in $\text{K}_x\text{Fe}_{2-y}\text{Se}_2$ superconductor", **Scientific Reports** **4**, 5592 (2014).
3. Itkis, D.M., Semenenko, D.A., Kataev, E.Y., Belova, A.I., Neudachina, V.S., Sirotnina, A.P., Hävecker, M., Teschner, D., Knop-Gericke, A., Dudin, P., **Barinov A.**, Goodilin, E. A., Shao-Horn, Y., Yashina, L.V., "Reactivity of carbon in lithium-oxygen battery positive electrodes", **Nano Letters** **13**, 4697-4701 (2013).
4. Paul, S., Ghosh, A., Dudin, P., **Barinov, A.**, Chakaraborty, A., Ray, S., Sarma, D.D., Oishi, S., Raj, S. "Photoelectron spectromicroscopy study of metal-insulator transition in Na_xWO_3 ", **Solid State Communications** **166**, 66-69 (2013).
5. Madsen, A.J., Asensio, M.-C., Avila, J., Dudin, P., **Barinov A.**, Moras P., Sheverdyeva, P.M., White, T.W., Maskery, I., Costantini, G., Wilson, N.R., Bell, G.R. "Is graphene on copper doped?", **Physica Status Solidi-RRL** **7**, 643-646 (2013).
6. Cattelan, M., Agnoli, S., Favaro, M., Garoli, D., Romanato, F., Meneghetti, M., **Barinov, A.**, Dudin, P., Granozzi, G. "Microscopic view on a chemical vapor deposition route to boron-doped graphene nanostructures", **Chemistry of Materials** **25**, 1490-1495 (2013).
7. Wilson, N.R., Marsden, A.J., Saghir, M., Bromley, C.J., Schaub, R., Costantini, G., White, T.W., Partridge, C., **Barinov, A.**, Dudin, P., Sanchez, A.M., Mudd, J.J., Walker, M., Bell, G.R. "Weak mismatch epitaxy and structural feedback in graphene growth on copper foil", **Nano Research** **6**, 99 (2013)
8. Mansart, B., **Barinov, A.**, Dudin, P., Baldassarre, L., Perucchi, A., Papalazarou, E., Metcalf, P., Lupi, S., Marsi, M., "Photoemission microscopy study of the two metal-insulator transitions in Cr-doped V_2O_3 ", **Applied Physics Letters** **100**, 04108 (2012)
9. Usachov, D., Vilkov, O., Grüneis, A., Haberer, D., Fedorov, A., Adamchuk, V.K., Preobrajenski, A.B., Dudin, P., **Barinov, A.**, Oehzelt, M., Laubschat, C., Vyalikh, D.V. "Nitrogen-doped graphene: Efficient growth, structure, and electronic properties", **Nanoletters** **11**, 5401 (2011).
10. S. Lupi, L. Baldassarre, B. Mansart, A. Perucchi, **A. Barinov**, P. Dudin, E. Papalazarou, F. Rodolakis, J.-P. Rueff, J.-P. Itié, S. Ravy, D. Nicoletti, P. Postorino, P. Hansmann, N. Parragh, A. Toschi, T. Saha-Dasgupta, O. K. Andersen, G. Sangiovanni, K. Held & M. Marsi, "A microscopic view on the Mott transition in chromium-doped V_2O_3 ", **Nature Communications** **1** (11), 105 (2010).

11. Valov, I., Luerssen, B., Mutoro, E., Gregoratti, L., De Souza, R.A., Bredow, T., Günther, S., **Barinov, A.**, Dudin, P., Martin, M., Janek, J. 'Electrochemical activation of molecular nitrogen at the YSZ/Ir interface' **Phys. Chem. Chem. Phys.** **13**, 3394 (2011). DOI:10.1039/C0CP01024C
12. Fauzia Jabeen, Silvia Rubini, Faustino Martelli, Alfonso Franciosi, Andrei Kolmakov, Luca Gregoratti, Matteo Amati, **Alexei Barinov**, Andrea Goldoni and Maya Kiskinova, "Contactless monitoring of the diameter-dependent conductivity of GaAs nanowires", **Nano Research** **3** (10), 706-713 (2010)
13. Dudin, P., Lacovig, P., Fava, C., Nicolini, E., Bianco, A., Cautero, G., **Barinov, A.**, "Angle-resolved photoemission spectroscopy and imaging with a submicrometer probe at the SPECTROMICROSCOPY-3.2L beamline of ELETTRA", **Journal of Synchrotron Radiation** **17**, 445-450 (2010).
14. Güther, S., Böcklein, S., Reichelt, R., Wintterlin, J., **Barinov, A.**, Menteş, T.O., Niño, M.Á, Locatelli, A., Surface patterning of silver using an electron- or photon-assisted oxidation reaction, *Chem Phys Chem* **11**(7), 1525-1532 (2010).
15. Aballe, L., **Barinov, A.**, Stojić, N., Binggeli, N., Mentes, T.O., Locatelli, A., Kiskinova, M., "The electron density decay length effect on surface reactivity", **Journal of Physics: Condensed Matter** **22** (1), art. no. 015001 (2010) .
16. **Barinov, A.**, Malcioglu, O.B., Fabris, S., Sun, T., Gregoratti, L., Dalmiglio, M., Kiskinova, M., "Initial stages of oxidation on graphitic surfaces: Photoemission study and density functional theory calculations" **Journal of Physical Chemistry C** **113** (21), pp. 9009-9013 (2009).
17. **Barinov, A.**, Dudin, P., Gregoratti, L., Locatelli, A., Onur Menteş, T., Ángel Niño, M., Kiskinova, M. "Synchrotron-based photoelectron microscopy", **Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment** **601** (1-2), pp. 195-202 (2009).
18. Blume R., Teschner D., Zafeiratos S., Schlögl R., Bukhtiyarov V.I., Kaichev V.V., Prosvirin I.P., Nizovskii A.I., Bluhm H., **Barinov A.**, Dudin P., Kiskinova M., X-Ray "Photoelectron Spectroscopy for Investigation of Heterogeneous Catalytic Processes", **Advances in Catalysis Volume 52, Issue C**, 2009, Pages 213-272 (2009).
19. **BARINOV A.**, GREGORATTI L, DUDIN P, LA ROSA S, KISKINOVA M. (2009). "Imaging and Spectroscopy of Multiwalled Carbon Nanotubes during Oxidation: Defects and Oxygen Bonding". **Advanced Materials**, vol. **21**, pp. 1916-1920 (2009).
20. Günther S., Reichelt R., Wintterlin J., **Barinov A.**, Menteş T.O., Niño M.Á., Locatelli A. Chemical patterning of Ag(111): Spatially confined oxide formation induced by electron beam irradiation, **Applied Physics Letters** **93** (23), art. no. 233117 (2008).
21. Dudin P., **Barinov A.**, Dalmiglio M., Gregoratti L., Kiskinova M., Goriachko A., Over H. Nanoscale morphology and oxidation of ion-sputtered Rh(1 1 0) and Ru(0 0 0 1), *Journal of Electron Spectroscopy and Related Phenomena* **166-167** (1-3 C), pp. 89-93 (2008).
22. Dudin P., **Barinov A.**, Gregoratti L., Scaini D., He Y.B., Over H., Kiskinova M. MgO-supported rhodium particles and films: Size, morphology, and reactivity, **Journal of Physical Chemistry C** **112** (24), pp. 9040-9044 (2008)
23. Kolmakov, A., Potluri S., **Barinov A.**, Mentes T.O., Gregoratti L., Niño M.A., Locatelli A., Kiskinova M., Spectromicroscopy for addressing the surface and electron transport properties of individual 1-D nanostructures and their networks, **ACS Nano** **2** (10), pp. 1993-2000 (2008).
24. He, Y.B., Goriachko, A., Korte, C., Farkas A., Mellau G., Dudin P., Gregoratti L.,

- Barinov A.**, Kiskinova M., Stierle A., Kasper N., Bajt S., Over H. Oxidation and reduction of ultrathin nanocrystalline Ru films on silicon: Model system for Ru-capped extreme ultraviolet lithography optics, **Journal of Physical Chemistry C** **111** (29), pp. 10988-10992 (2007)
25. **Barinov A.**, Ustunel H., Fabris S., Gregoratti L., Aballe L., Dudin P., Baroni S., Kiskinova M., "Defect - controlled transport properties of metallic atoms along the nanotube surfaces", **Phys. Rev. Lett.**, 99, 046803 (2007)
26. Blume R., Haevecker M., Zafejratos S., Teschner D., Knop-Gericke A., Schloegl R., Dudin P., **Barinov A.**, Kiskinova M., "Oxidation of methanol on Ru catalyst: effect of reagents partial pressure on the catalyst oxidation state and selectivity", **Cat. Today**, 124, 71-79 (2007)
27. Aballe L., **Barinov A.**, Locatelli A., Menetes T.O., Kiskinova M., "Initial stages of heteroepitaxial Mg growth on W(110): early condensation, anisotropic strain, and self-organized patterns", **Phys. Rev. B** **75**, 115411 (2007).
28. Blume R., Haevecker M., Zafejratos S., Teschner D., Kleimenov E., Knop-Gericke A., Schloegl R., **Barinov A.**, Dudin P., Kiskinova M., "Catalitically active states of Ru(0001) catalyst in CO oxidation reaction", **J. Cat.** **239**, 354-361, (2006).
29. Schmidt Th., Siebert M., Pretorius A., Gangopadhyay S., Figge S., Flege J.I., Gregoratti L., **Barinov A.**, Hommel D., Falta J., "Spectro-microscopy of Si doped GaN films", **NIM in Phys Research B** **246**: 79-84, (2006).
30. Potts A.W., Morrison G.R., **Barinov A.**, Gregoratti L., Kiskinova M., "Photoemission microscopy study of the temperature evolution of a Pd film deposited on a polycrystalline Ni substrate", **Phys. Rev. B** 72: 193403, (2005).
31. Dudin P., **Barinov A.**, Gregoratti L., Kiskinova M., Esch F., Dri C., Africh C., Comelli G., "Initial oxidation of a Rh(110) surface using atomic or molecular oxygen and reduction of the surface oxide by hydrogen", **J. Phys. Chem. B** **109** (28): 13649-13655, (2005).
32. Blume R., Niehus H., Conrad H., Bottcher A., Aballe L., Gregoratti L., **Barinov A.**, Kiskinova M., "Identification of Subsurface Oxygen Species Created during Oxidation of Ru(0001)" **J. Phys. Chem. B** **109** (29): 14052- 14058, (2005).
33. Tello M., Garcia R., Martin-Gago J.A., Martinez N.F., Martin-Gonzalez M.S., Aballe L., **Barinov A.**, Gregoratti L., "Bottom-up fabrication of carbon-rich silicon carbide nanowires by manipulation of nanometer-sized ethanol menisci", **Adv. Mater.** **17** (12): 1480-1483, (2005).
34. Locatelli A., **Barinov A.**, Gregoratti L., Aballe L., Heun S., Kiskinova M., "Spectroscopic identification and imaging of surface processes occurring at microscopic and mesoscopic scales", **J. Electron Spectr. and Relat. Phenom.** **144**: 361-366 Sp. Iss. SI, (2005).
35. Melpignano P., Baron-Toaldo A., Biondo V., Priante S., Zamboni R., Murgia M., Caria S., Gregoratti L., **Barinov A.**, Kiskinova M., "Mechanism of dark-spot degradation of organic light-emitting devices", **Appl. Phys. Lett.** **86** (4): Art. No. 041105, (2005).
36. Aballe L., **Barinov A.**, Locatelli A., Heun S., Kiskinova M., "Tuning surface reactivity via electron quantum confinement", **Phys. Rev. Lett.** **93** (19), 196103, (2004).
37. Gunther S., Esch F., Gregoratti L., **Barinov A.**, Kiskinova M., Taglauer E., Knozinger H., "Gas-phase transport during the spreading of MoO₃ on Al₂O₃ support surfaces: Photoelectron spectromicroscopic study", **J. Phys. Chem. B** **108** (38), 14223-14231, (2004).
38. Aballe L., **Barinov A.**, Locatelli A., Heun S., Cherifi S., Kiskinova M.,

- “Spectromicroscopy of ultrathin Pd films on W(110): interplay of morphology and electronic structure”, **Appl. Surf. Sci.** **238** (1-4),138-142, (2004).
39. Flammini R., Wiame F., Belkhou R., Taleb-Ibrahimi A., Gregoratti L., **Barinov A.**, Marsi M., Kiskinova M., "Effects of annealing on the structure of the Au/Si(111)-H interface", **Surf. Sci.** **564**, 121-130, (2004).
 40. Goldoni A., Petaccia L., Gregoratti L., Kaulich B., **Barinov A.**, Lizzit S., Laurita A., Sangaletti L., Larciprete R., "Spectroscopic characterization of contaminants and interaction with gases in single-walled carbon nanotubes", **Carbon** **42** (10), 2099-2112, (2004).
 41. Aballe L., Gregoratti L., **Barinov A.**, Kiskinova M., Clausen T., Gangodadhayay S., Falta J., "Interfacial interactions at Au/Si₃N₄/Si(111) and Ni/Si₃N₄/Si(111) structures with ultrathin nitride films", **Appl. Phys. Lett.** **84** (24), 5031-5033, (2004).
 42. Suzuki S., Watanabe Y., Ogino T., Homma Y., Takagi D., Heun S., Gregoratti L., **Barinov A.**, Kiskinova M., "Observation of single-walled carbon nanotubes by photoemission microscopy", **Carbon** **42**, 559-563, (2004).
 43. Gregoratti L., **Barinov A.**, Benfatto E., Cautero G., Fava C., Lacovig P., Lonza D., Kiskinova M., Tommasini R., Mahl S., Heichler W., "48-Channel electron detector for photoemission spectroscopy and microscopy", **Rev. Sci. Instr.** **75**, 64-68, (2004). **9 cites**
 44. Belkhou R., Flammini R., Marsi M., Taleb-Ibrahimi A., Gregoratti L., **Barinov A.**, Kiskinova M., "Role of gold segregation in the growth mode and the morphology of Fe/Au(001) magnetic thin films", **Surf. Sci.** **532**, 63-69, (2003).
 45. Schmidt Th., Clausen T., Gangopadhyay S., Falta J., Heun S., Gregoratti L., **Barinov A.**, Kaulich B., Kiskinova M., "Spectro-microscopy of ultra-thin SiN films on Si(111)", **NIM B** **200**, 79-84, (2003).
 46. **Barinov A.**, Gregoratti L., Kaulich B., Kiskinova M., "Surface Electromigration Patterns in a Confined Adsorbed Metal Film: Ga on GaN", **ChemPhysChem** **3(12)**, 1019-23, (2002).
 47. **Barinov A.**, Gregoratti L., Casalis L., and Kiskinova M., "Interfacial reactions and Schottky barrier properties of composite patterned metal/GaN interfaces", **JVST B** **20 (5)**, 1918-22, (2002).
 48. Nelson A.J., Danailov M., **Barinov A.**, Kaulich B., Gregoratti L., Kiskinova M., "Scanning photoelectron microscopy study of laser-induced surface reactions in Pt/Si(001)", **Appl. Phys. Lett.** **81 (21)**, 11246, (2002).
 49. Suzuki S., Watanabe Y., Ogino T., Heun S., Gregoratti L., **Barinov A.**, Kaulich B., Kiskinova M., Zhu W., Bower C., Zhou O., "Extremely small diffusion constant of Cs in multiwalled carbon nanotube", **J. Appl. Phys.** **92** (12): 7527-7531, (2002).
 50. Bottcher A., Starke U., Conrad H., Blume R., Niehus H., Gregoratti L., Kaulich B., **Barinov A.**, Kiskinova M., "Spectral and spatial anisotropy of the oxide growth on Ru(0001)", **J. Chem. Phys.** **117 (17)**, 8104-09, (2002).
 51. Gunther S., Marbach H., Hoyer R., Imbihl R., Gregoratti L., **Barinov A.**, Kiskinova M., "On the origin of stationary concentration patterns in the H-2+O-2 reaction on microstructured Rh(110)/Pt surface with potassium", **J. Chem. Phys.** **117** (6), 2923-2933, (2002).
 52. Suzuki S., Watanabe Y., Ogino T., Heun S., Gregoratti L., **Barinov A.**, Kaulich B., Kiskinova M., Zhu W., Bower C., Zhou O., "Electronic structure of carbon nanotubes studied by photoemission microscopy", **Phys. Rev. B** **66**, 035414, (2002).
 53. Potts A.W., Morrison G.R., Gregoratti L., **Barinov A.**, Kaulich B., Kiskinova M., "The

- Exploitation of multichannel detection in scanning photoemission microscopy”, **Surf. Rev. Lett.** **9** (2), 705-708, (2002).
54. Gunther S., Marbach H., Lurssen B., Imbihl R., Gregoratti L., **Barinov A.**, Kiskinova M., “Directional transport of K on catalytic metal surfaces”, **Surf. Rev. Lett.** **9** (2), 751-758, (2002).
 55. Heun S., Gregoratti L., **Barinov A.**, Kaulich B., Rudolf M., Lazzarino M., Biasiol G., Bonanni B., Sorba L., “Morphology and chemistry of S-treated GaAs(001) surfaces”, **Surf. Rev. Lett.** **9** (1), 413-423, (2002).
 56. Prince K.C., Heun S., Gregoratti L., **Barinov A.**, Kiskinova M., “Long-term oxidation behaviour of lead sulfide surfaces” in Nanoscale spectroscopy and its applications to semiconductor research, **Lecture Notes in Physics**, Springer Verlag, Heidelberg, (Eds: Y. Watanabe, S. Heun. G. Salviati, N. Yamamoto) 588, 111-120, (2002).
 57. **Barinov A.**, Gregoratti L., Kiskinova M., “Direct experimental evidence of insensitivity of local Schottky barriers to chemical lateral heterogeneity in case studies of metal/GaN interfaces”, **Phys. Rev. B** **64**(20), 201312(R), (2001).
 58. **Barinov A.**, Gregoratti L., Kaulich B., Rizzi A., Kiskinova M., “Defect-induced lateral heterogeneity at Ni/GaN interface and its effect on the electronic properties of the interface”, **Appl. Phys. Lett.** **79** (17), 2752-2754, (2001).
 59. **Barinov A.**, Casalis L., Gregoratti L., Kiskinova M., “Au/GaN interface: Initial stages of formation and temperature induced effects”, **Phys. Rev. B** **63**, 85308, (2001).
 60. **Barinov A.**, Casalis L., Gregoratti L., Kiskinova M., “Stages of formation and thermal stability of a gold-n-GaN interface”, **J. Phys. D** **34**, 279-284, (2001).
 61. Gregoratti L., **Barinov A.**, Casalis L., Kiskinova M., “Spectromicroscopy of interfacial interactions between thin Ni film and a Au-Si surface”, **Appl. Surf. Sci.** **171**(3-4), 265-274, (2001).
 62. Larciprete R., Danailov M., **Barinov A.**, Gregoratti L., Kiskinova M., “Thermal and pulsed laser induced surface reactions in Ti/Si(001) interfaces studied by spectromicroscopy with synchrotron radiation”, **J. Appl. Phys.** **90** (9), 4361-4369, (2001).
 63. Larciprete R., Danailov M., **Barinov A.**, Casalis L., Gregoratti L., Kiskinova M., “Lateral heterogeneity in the surface composition after laser processing of Ti/Si interface contaminated with oxygen”, **Appl. Phys. Lett.** **79**(2), 191-193, (2001).
 64. Larciprete R., Danailov M., **Barinov A.**, Casalis L., Gregoratti L., Kiskinova M., “Visible and UV Pulsed Laser Processing of Ti/Si(001) Interface Studied by XPS Microscopy with synchrotron radiation”, **Surf. Sci.** **482-485**(1-3), 141-146, (2001).
 65. **Barinov A.**, Casalis L., Gregoratti L., Kaulich B., Kiskinova M., in Nanoscale Spectroscopy and Applications to Semiconductor Physics **Lecture Notes in Physics**, Springer Verlag, Heidelberg, (Eds: Y. Watanabe, S. Heun. G. Salviati, N. Yamamoto) 588, (2002).
 66. **Barinov A.**, Gregoratti L., Günther S., Marsi M., Kiskinova M., “Synchrotron radiation scanning photoemission microscopy: advances and applications” **Proc. 12th European Congress of Electron Spectroscopy EIREM 12**, p. I-503, (2000).
 67. Stankevitch V.G., Dudin P.V., **Barinov A.V.**, Svetchnikov N.Yu., Kolmakov A.A., “Optical Investigations of Fluorinated Fullerenes in The Solid State”, **Molecular Crystals and Liquid Crystals, Science and Technology C, "Molecular Materials"**, **v.10**, pp.229-234, (1998).
 68. Stankevich V.G., Dudin P.V., **Barinov A.V.**, Svetchnikov N.Yu., Kolmakov A.A.,

- Ryzghkov A.V., Bezmelnitsin V.N., Schwentner N., Sliwinski G. "Optical Studies of Fluorinated Fullerenes", **Poverchnost 8-9**, 176-178, (1998).
69. Dudin P.V., Svechnikov N.Yu., Stankevich V.G., **Barinov A.V.**, Ryzghkov A.V., Bezmelnitsin V.N., Kamada M., Hiroso S., Kanno K., Akimoto I., Matsumoto T., Schwentner N., Sliwinski G., "Buckminsterfullerenes: effect of fluorination and phase on electronic structure" **Poverchnost 12**, 73-80, (1999).

Other articles

Barinov A., book review ('Solid State Photoemission and Related Methods' eds. W. Schattke and M. Van Hove) **ChemPhysChem 10**, 1631, (2004)

Participation in conferences

1. **A. Barinov**, "Scanning micro-ARPES @Elettra and its applications", **SPEM-2014**, Diamond Light Source, UK, 20-21 March 2014, **invited talk**
2. **A. Barinov**, "Beyond angle resolved photoemission spectroscopy - spatial and temporal resolution for high frequency pulsed photon sources", **Synchrotron Radiation Instrumentation 2013. Workshop: Photoemission Spectroscopy: the Upcoming Decades**, Washington D.C., USA 18 June 2013, **invited talk**
3. **A. Barinov**, "Angle resolved photoemission spectromicroscopy and its applications for advanced materials study", **Science @CERIC**, Trieste, Italy 11-12 Dec 2012, **invited talk**
4. **A. Barinov**, "Electronic structure from small scale with scanning angle resolved photoemission microscopy tool", **Nano TP MP0901 Scientific meeting "Designing novel materials for nanodevices: from theory to practice"**, Trieste, Italy 9-11 Nov 2011, **invited talk**
5. **A. Barinov**, "Micro-ARPES at SPECTROmicroscopy-3.2L beamline of Elettra", **SPEM-2010**, Trieste, Italy 13-14 Dec. 2010 **invited talk**
6. **A. Barinov**, "Scanning photoemission imaging and spectromicroscopy at Elettra: current status, upgrades and studies of nanostructured materials", **Italian-Australian Workshop "Photons for medicine and material science"**, 19-21 Feb., 2010, Melbourne, Australia **invited talk**
7. **A. Barinov** "Scanning photoelectron microscopy: present status, upgrades and applications in studies of nanostructures materials", Russian –Italian Workshop on Synchrotron radiation, Moscow 11 Dec, 2009, **invited talk**
8. **A. Barinov**, L. Gregoratti, L. Aballe, P.Dudin, and M. Kiskinova, "Diffusion and atomic arrangement of metals on the surface of multiwall carbon nanotubes", **ECOSS 23 - European Conference on Surface Science**, Berlin (Germany), September 4-9, 2005, **poster**.
9. **L. Aballe**, **A. Barinov**, A. Locatelli, S. Heun, M. Kiskinova, "Tuning surface reactivity

- via electron quantum confinement”, ECOSS 23 - European Conference on Surface Science, Berlin (Germany), September 4-9, 2005, **invited talk**
10. **A. Barinoy**, E. Lutsenko, V. Pavlovskii, V. Zubialevich, L. Gregoratti, L. Aballe, G. Yablonskii, M. Kiskinova, B. Schineller, and M. Heuken, “Cross-sectional photoelectron spectromicroscopy measurements of quantum dimensional AlGa_N/Ga_N heterostructures: spatially resolved band structure mapping”, PLMCN4 (International conference on physics of light matter coupling in nanostructures), St. Petersburg, Russia, 29 June - 3 July 2004 . **invited poster**.
 11. **A. Barinoy**, L. Casalis, L. Gregoratti, B. Kaulich and M. Kiskinova, “Photoemission microscopy of spatially defined metal/GaN interfaces”, International Workshop on Nitride Semiconductors, 22-25 July 2002, Aachen, Germany, **oral**.
 12. **A. Barinoy**, L. Casalis, L. Gregoratti, B. Kaulich and M. Kiskinova, “Photoemission microscopy of spatially defined metal/GaN interfaces”, 11th International Conference on Solid Films and Surfaces, 8-12 July 2002, Marseille, France, **oral**.
 13. **A. Barinoy**, L. Casalis, L. Gregoratti, B. Kaulich and M. Kiskinova, “Morphology, chemistry and electronic properties of metal/n-GaN interfaces”, International conference on X-Ray optics and microanalysis XVI, Vienn, July 2-6, 2001, Austria, **oral**.
 14. **A. Barinoy**, L. Casalis, L. Gregoratti, B. Kaulich and M. Kiskinova, “Formation stages and thermal stability of metal/n-GaN interface”, 1st International Workshop on Nano-scale Spectroscopy and its Applications to Semiconductor Research, December 11-14, 2000, Trieste, Italy, **oral**.
 15. **A. Barinoy**, L. Casalis, L. Gregoratti, B. Kaulich and M. Kiskinova “Defect-induced lateral heterogeneity at metal/ n-GaN interfaces and its effect on Schottky barrier height” VUV13, Trieste 2001, **poster**.
 16. **A. Barinoy**, L. Casalis, L. Gregoratti, B. Kaulich and M. Kiskinova “Morphology, chemistry and electronic properties of metal/GaN interfaces” Elettra Users Meeting 2000 **poster**.

Participation in schools and seminars:

- May. 2006** Lecture at Synchrotron Radiation School, ICTP, “Scanning photoelectron spectromicroscopy”.
1. **Feb. 2005** FHI Berlin, seminar, “Oscillations of oxidation rate of thin epitaxial Mg films grown on W(110)”.
 2. **Mar. 2004, 2005, 2006** Practical exercises at ESCA microscopy with students of HERCULES school.