

Curriculum Vitae of Francesca Baletto

• PERSONAL INFORMATION

Family name, First name: Baletto, Francesca

Date and Place of birth: [REDACTED]

Nationality: Italian

Marital Status: [REDACTED]

ResearcherID: Q-2136-2017

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<https://scholar.google.com/citations?user=zx1ZR2wAAAAJ&hl=it>

<http://www.researcherid.com/rid/Q-2136-2017>

• EDUCATION

1994-1999 Master in Physics, Physics Department, University of Genova, Italy

2003 PhD in Physics, Physics Department, University of Genova, Italy

Thesis title: "Energetics, Thermodynamics and Growth Kinetics of Nanoclusters"

CURRENT POSITION

Sept. 2021 – Associate Professor in Physics of Matter (FIS03 – 02/B2),
Physics Department "Aldo Pontremoli", University of Milan, Italy

Sept. 2018 – August 2021 Reader in Physics, Physics Department, King's College London, UK

• PREVIOUS POSITION

Oct. 2020 – July 2021 Visiting Professor at DIPC, San Sebastian, Spain (study leave)

Apr. 2013 – Aug. 2018 Senior Lecturer, Physics Department, King's College London, UK

Aug. 2007 – Mar. 2013 Lecturer, Physics Department, King's College London, UK

May 2006 – Jul. 2007 Postdoctoral Associate

Dept. of Materials Science and Engineering, MIT, USA

Aug. 2003 – May 2006 UNESCO fellow at

International Centre for Theoretical Physics, Trieste, Italy

Feb - May 2001 High School Physics Teacher at IPM 'Meucci', Genova, Italy

Sept 2002 - Jun 2003 High School Physics Teacher at IPSAA 'B. Marsano', Genova, Italy

• CAREER BREAKS (birth certificates and a College statement are available on request)

11 Feb. 2014 – 31 May 2014 50 % Part-time following parental needs [4 months part-time]

12 April 2013 – 10 Feb. 2014 Maternity Leave [10 months]

25 Sept. 2011 – 01 Feb. 2012 Maternity Leave [4 months]

• HONOURS & ESTEEM

2021- Member of the Psi-K Working Group B3 "Bridging length and time scales"

2021- Treasurer for the Royal Society of Chemistry Theoretical Chemistry Group

2021- Associate Editor for Frontiers in Catalysis – Modelling theory and computational catalysis section

2019- Elected Member of the International Committee of ISSPIC (ISSPIC -IAC), the main international organization in cluster physics (elected at the ISSPIC meeting in August 2018)

2018 Guest editor special issue on "Shaping nano-catalysts", European Physics Journal B

2017- Elected Member of the Royal Society of Chemistry Theoretical Chemistry Group, renewed in 2019 for other two years

2015 KCL-2015 Recognition Pay Scheme on the basis of my "exceptional performance over the previous 12 months has been recognised. The success of the Department, the Faculty, and King's as a whole, relies on contributions like yours."

2013 ASN as Associate Professor at Italian Universities, Theory of Condensed Matter (02/B2- II Fascia)

2010-2014 Elected UK representative of the MP0903-COST-Action Board and Manager of short-term scientific missions (annual budget ~20000€)

2009- Scientific Grant evaluator for various institutions, i.e. EPSRC, FWO, ANVUR, ACS-Petroleum Research Fund; CINECA-ISCRA project, FONDECYT-CHILE; Israel Science Foundation; La Caixa
2003–06 UNESCO Research Fellow held at the ICTP
1999–00 Research postgrad fellow, INFN-CNR, U.d.R. Genova, Italy

• MEMBERSHIPS OF SCIENTIFIC SOCIETIES

Oct. 2018 – Member of the London Centre of Nanotechnology (UK)
Dec. 2017– Member of the MCC (EPSRC, EP/R029431/1 and previously EP/L000202/1)
Oct. 2016 – Member of the MMM-Hub (EPSRC, EP/P020194/1)
Oct. 2016 – Member of the Institute of Physics (UK)
Feb. 2009 – Member of Royal Society of Chemistry (UK)
Sept. 2007 – Member of the Thomas Young Centre (TYC, London)

• MAJOR COLLABORATIONS

2021– HPC3 Padova Univ./KCL
2019– KCL-Dresden Transcampus activities
2018– IRN-CNRS network
2017– EHU/UPV supported by different HPC2 and HPC3 grants
2012-2017 EPSRC-Critical Mass Responsive Mode on "TOUCAN: Towards an Understanding of CAalysis on Nanoalloys", with University of Birmingham, Cambridge, Oxford, University College London.
2011-2015 FAPESP collaboration between KCL and San Paulo University (Brazil) to support our common activity on "Computational Nanoscience for Energy Materials (Co-I [REDACTED])"
2010- 2014 EU-MP0903-COST-Action on Nanoalloys

• INSTITUTIONAL RESPONSIBILITIES

2020 – 2021 Member of the Research Culture Task & Finish Working Group, King's College London
2018 – 2020 Member of the Dept. Strategy Educational Committee, King's College London, UK
2018 – 2020 Member of the Dept. Research Committee, King's College London, UK
2018 – 2020 Post-doctoral researcher Mentor, King's College London, UK
2016 – 2020 Career Tutor, King's College London, UK
2016 – 2020 Female Tutor, King's College London, UK
2014 – 2020 Member of the Diversity and Equality Depart. committee, King's College London, UK
2011 – 2016 Chair of the Departmental Assessment Committee, King's College London, UK
2011 – 2016 Member of the Faculty Assessment Committee, King's College London, UK
2011 – 2016 Member of the Departmental Educational Committee, King's College London, UK
2007 – 2008 Organiser of the Internal Seminar, King's College London, UK

• ORGANISATION OF SCIENTIFIC MEETINGS

2022 Organising Committee Faraday-Discussion on Nanoalloys
2021 Organising committee for CCP2020 section on "Materials and nano-science"
2020 Organising committee for MMM10-Symposium 14 on "Metals at the nanoscale and metals-based nanoparticles: environmental, mechanical and kinetic properties" (postponed)
2020 Organising committee for TYC Energy Workshop 2020 (postponed)
2018 Steering committee of the RSC-TCG Conference 2018
2012-2014-2016 Organiser of the Energy Materials workshop series on behalf of the Thomas Young Centre, London, UK. Main organiser for the 2016 edition 2016, dedicated to "Shaping Nanocatalysts" in conjunction with the final international conference for the TOUCAN project.
2016 USP-KCL meeting, webinar meeting between KCL and USP delegation, May 2016
2015 Organising Committee for Condensed Matter Physics-2015, Boston, USA
2014 TAMC VII, local organiser, Birmingham, UK

• OUTREACH

Supporting Women (mainly mums) in Science activities with my personal appearance at various institutions.

INVITED TALKS @ INTERNATIONAL CONFERENCES (after 2010)

29. Talk at the CECAM-Flagship Workshop on "Born-to-be-different", 7-9 July 2021 (virtual)
28. Talk at the SIAM Minisymposium-Nanocrystals and Epitaxial Nanoclusters, on "Born to be different: modelling formation of metallic nanoparticles and their consequences", May 2021 (virtual)
27. Talk at the IMN 2021 on "Formation and catalytic properties of Pt-nanoalloys", April 2021 (virtual)
26. Talk at the CECAM-Workshop on "Rational design of functionalized nanoparticles: Theory meets Experiments 2021", -- postponed to 2022
25. Talk at the Gordon Research Conference on Crystal Growth & Assembly, -- postponed to 2023
24. Talk at the Int. Conf. Theoretical Aspects of Catalysis (ICTAC), Lyon (France) -- postponed to 2022
23. Talk at the Gordon Research Conference on "Cluster and nanostructures", Les Diablerets (CH) Jun. 2019
22. Talk at the Forum 2- WCF 2019, Barcelona (Spain) May 2019
21. Talk at the ICTP-Workshop on "Crystal Structure Prediction", Trieste (Italy) Jan. 2019
20. Talk at the CECAM Flagship Workshop on "Modelling metal-based nanoparticles: environment and dynamical effects" Grenoble (France) Dec. 2018
19. Talk at the ISSPIC-XIX, Hangzhou (China) Aug. 2018
18. Talk at the COST-Action CM-1405 MOLIM Graz (Austria) Feb. 2018
17. Talk at MMM-Hub for the launch of the EPSRC-Tier 2, London (UK) Sept. 2017
16. Lecture at the CATSENSE Summer School, Leuven (Belgium) Sept. 2017
15. Talk at the Faraday Joint Interest Group Conference, Warwick (UK) Apr. 2017
14. Talk at the Inter. Symposium Semiconductor Clusters and Nanoparticles, Berlin (Germany) Feb. 2017
13. Talk at the International Workshop on Nanoalloys, Birmingham (UK) Dec. 2016
12. Lecture at the ICTP-College on Multiscale Computational Modelling of Materials, Trieste (Italy) Jul. 2016
11. Lecture at the TYC/Toucan Int. Workshop on Energy materials, London (UK) Dec. 2016
10. Talk at the PacificChem 2015, Hawaii (USA) Dec 2015
9. Talk at the EMN-2015, San Sebastian (Spain) Sept. 2015
8. Talk at the ECOSS-2015, Barcelona (Spain) Sept. 2015
7. Talk at the CECAM workshop, Toulouse (France) Jun 2015
6. Talk at the COST-Action-MP0903 Inter. workshop, Santa Margherita (Italy) Apr. 2014
5. Lecture at the TOFA 2012, Pula (Croatia) Sep. 2012
4. Hot Topics at the ISSPIC XVI, Leuven (Belgium) Jul. 2012
3. Talk at the COST-Action MP0903 Meeting, Genoa (Italy) Oct. 2010
2. Talk at the CECAM Workshop, Lausanne (CH) Sept. 2010
1. Talk at the IMRC/MRC XIX, Cancun (Mexico) Aug. 2010

• GRANT APPLICATIONS

My research income is exceeding 0.91M€, including main research grant, equipment, travel grants.

Apr-Jun 2021: DIPC funding as DIPC visiting professor, ~€10000

Feb. 2021 HPC3, co-I, [REDACTED] (Padua), travel grant and computational time, ~€2800

Feb-Jun 2021: MMC-grants for Tier1-Archer2 and Tier2-Young, ~€14900

Jan-Oct 2020: MMC-grants for using Tier1-Archer and Tier2-Thomas, €4045

Jan. 2020: HPC3, co-I, PI [REDACTED] (Leuven), travel grant and computational time, ~€3000

Sept. 2019: HPC3, co-I, PI [REDACTED] (URV, Spain) travel grant and computational time, ~€3500

Feb. 2019: GRC- Travel support €884

Jan.-Jun. 2019: Software factory for nanoscaled materials: the LoDiS suite, EPSRC, £11,020.00

Dec. 2018: Computational time on MCC-EPSRC for equivalent 16 MAu over three projects, PI, ~€9600. This is part of the EPSRC-EP/R029431/1 (2018 – 2022) of the value of £489316. Two calls per annum.

Nov. 2018: EPSRC-IAA grant (impact grant), PI, ~€12000

Oct. 2018: HPC3, co-I, PI Prof D'Agosta (UPV, Spain), travel grant and computational time, ~€3200

Aug 2018: co-I to support 6-months sabbatical visit by prof. [REDACTED] through Programa "Salvador de Madariaga"

2018 #PRX18/00460, ~€19000

July 2020: since 2016 10 KURF Summer studentships total value ~€14,000

Since July 2017: personal budget on Tier 2 – Hub as member of the Materials and Molecular Modelling group (supported by EPSRC- EP/P020194/1 value £4,000,000)

Dec. 2017 - July 2018: Computational time on MCC-EPSRC for equivalent ~25 MAU over two projects, PI, ~€13950, within the EPSRC-Materials Chemistry High End Computing Consortium (total value £384733)

June 2017: Computational time on Marenostrum BSC, co-I, PI [REDACTED] (UPV/EHU) ~ €10000.

May 2017: Summer Internship funding sponsored by CCP5, ~€3000.

Dec. 2016: Funding raised to organize the TYC-Toucan workshop, several funding agencies including Psi-K, IoP, RSC, CCP9 and Overleaf, ~€18000.

June 2016 - June 2017: (co-I, PI [REDACTED]) Brazilian Science without Border fellowship, supporting a senior post-doctoral fellowship on "Catalytic activity of Pt-nanoparticles" ~€30000.

Feb. 2016 – Mar. 2016: (co-I, PI [REDACTED]) CONACyT "Movilidad en el Extranjero" (Grant 291062) and Thomas Young Centre Junior Fellowship, research visit on the project "Theoretical study of the magnetic properties in PtNi and NiAl small-sized aggregates".

Oct. 2015 – Jan. 2016: (co-I, PI [REDACTED]) research visit supported as a prestigious "MyBrain scholarship" by the Malaysian Government on the project "Modelling metallic nanoparticles", ~€3000.

April 2015: (co-I, PI [REDACTED]) Gobierno Basco, Movilidad del Personal Investigador 2014 travel grant, €9485.

December 2012 - November 2013: (PI) Royal Society Research Grant on "Physical properties of PtNi nanoalloys at oxide interfaces", €18000.

September 2012-September 2017: (PI) EPSRC-Critical Mass Responsive Mode on "TOUCAN: Towards an Understanding of Catalysis on Nanoalloys", which includes partners at University of Birmingham, Cambridge, Oxford, University College London. Total €2500000, personal budget €300000 plus a significant contribution in Computational Time at the National HPC facility Hector/ARCHER (worth ~€2M).

July-August 2011: (PI) HPC2 grant (project number hpce08173) to support a month visit to the group of Prof. [REDACTED] (Nano-bio, ETSF/EHU-UPV) and the use of BSC supercomputers on the project of Optical properties of nanoparticles". Value €2500 plus the computational time on Barcelona Super Computing HPC-Europa2.

May 2011-May 2015: (Co-I, PI [REDACTED]) FAPESP collaboration between KCL and San Paulo University (Brazil) to support our common activity on "Computational Nanoscience for Energy Materials: Hydrogen storage and production and ethanol catalysis through metallic nanoalloys", €11000.

May 2011-April 2012: (PI) COST-Action MP0903 visit to Univ. of Genova on the project 'Small AuAg nanocages', €600.

April 2011: (PI) COST-Action MP0903 Grant to attend an International meeting in Barcelona, €680.

June 2010: Hector awarded a phase 2b project (number e169) on "NOR: nanoalloys for oxygen reduction in fuel cell", €3500.

October 2010: COST-Action MP0903 travel Grant to cover expenses to attend the kick-off meeting, €250.

September 2010: (PI) CECAM Travel Grant for conference, €300.

August 2010: (PI) MRS/ICMR Travel Grant for conference, €300.

July 2009 - September 2014: (PI) EPSRC First Grant, on "CPLACES: Clusters of platinum alloys for fuel cell applications". €460500.

August 2008: (PI) Travel Grant from Royal Society to attend International conferences, €1700.

January 2007: (PI) Travel Grant from ESF, ICMR and MCC to attend to International conferences, ~ €950.

Jan.-Dec. 2006: two grants for computational time at CINECA, on the projects "Heterogeneous Catalysis on ice surfaces in stratospheric conditions" and "Water Clusters: Application of the density functional theory to the physics of water clusters", value €5200.

Baletto full list of publication (August 2021)

More than 60 peer-reviewed publications, (h-index 24 from Web of Science, and 26 from Google Scholar)
Number of citations [C#] reported for the most recent.

Recent Invited contributions to books

Chapter on “A fluxional anionic water trimer”, J. Finn and F. Baletto, Energy Landscapes of Nanoscale Systems, Edited by D. Wales, Elsevier (June 2021)

Under review

- Data-driven modelling of Au nanoparticles surface melting and characterization, C. Zeni et al. accepted on Nature Comm. (Sept 2021), available at [ArXiv available](#)
- The size-dependent influence of palladium doping on the structures of cationic gold clusters, P. Ferrari et al. under revision

In preparation/Writing

- Characterisation of Au-nanoparticles assembled into nanofilaments, [REDACTED]
- Optical properties of hollow and compact shapes of coinage metals, [REDACTED]
- Aggregating small Pt into large Au nanoparticles, [REDACTED]
- Optical transitions and selection rules in small Au clusters, [REDACTED]
- SAPPHERE: a characterisation tool of metallic nanoparticles, [REDACTED]

Published on international, peer-reviewed journals

1. [Born to be different: the formation process of Cu-nanoparticles tunes the size-trend of the activity for CO₂ to CH₄ conversion](#), E. Gazzarrini, K. Rossi, F. Baletto, Nanoscale (2021), 13, 5857 [C1]
2. [Benchmarking density functional theory methods for modelling cationic metal-argon complexes](#), L. Delgado-Callico, P. Ferrari, J. M. Bakker, F. Baletto, E. Janssens, accepted Theo. Chem. Acc. (2021), 140, 38 [C2]
3. [A universal signature in the melting of metallic nanoparticles](#), L. Delgado-Callico, K. Rossi, R. Pinto-Miles, P. Salzbrenner, F. Baletto, Nanoscale, 13 (2021) 1172 [C2]
4. [Stability of cationic silver doped gold clusters and the subshell-closed electronic configuration of AuAg₁₄⁺](#), P. Ferrari, L. Delgado-Callico, P. Lievens, F. Baletto, E. Janssens, J. Chem. Phys. 153 (2020) 244304 [C1]
5. [Structural Screening and Design of Platinum Nanosamples for Oxygen Reduction](#), K. Rossi, GG Asara, F. Baletto, ACS Cat. 10 (2020) 3911 [C6]
6. [A Kinetic Monte Carlo-blueprint for oxygen reduction on oxide-supported PtNi nanoalloys](#), D. Schmidt, GG Asara, F. Baletto, J. Chem. Phys. 152 (2020) 034107, appeared on Special Topic on “Catalytic Properties of Model Supported Nanoparticles”, Eds. C. Campbell, N. López, S. Vajda [C1]
7. [Interdependence of Shape and Magnetic Properties in Al-nanoparticles doped with Ni and Pt](#), O. Lopez-Estrada, E. Orgaz, and F. Baletto, J. Mat. Chem. C 8 (2020) 2533-2541 [C1]
8. [Correlating Oxygen reduction reaction activity and structural rearrangements in MgO-supported nanoparticles](#), K. Rossi, GG Asara, F. Baletto, ChemPhysChem, 20 (2019) 30317-3044 [C3]
9. [On Machine learning force fields for metallic nanoclusters](#), C. Zeni, K. Rossi, A. Glielmo, F. Baletto, Adv. Phys. X 4 (2019) 1654919 [C18]
10. [Structural properties of sub-nanometer metallic clusters](#) F. Baletto J. Phys. Cond. Matt. 31 (2019) 113001 [C24]
11. [Ethanol chemisorption on core-shell Pt-nanoparticles: an ab-initio study](#), VA Rigo, CR Miranda, F. Baletto, Eur. Phys. J. B 92 (2019) 24 [C6]
12. [A genomic characterization of metallic nanoparticles](#), K. Rossi, GG Asara, F. Baletto, PCCP 21 (2019) 4888 [C15]
13. [Thermodynamics of CuPt nanoalloys](#), K. Rossi, L. Partay-Bartok, G. Csanyi, F. Baletto, Scientific Reports, 8 (2018) 9150 [C15]
14. [Building machine learning force fields for nanoclusters](#), C. Zeni, K. Rossi, A. Glielmo, N. Gaston, F. Baletto, A. De Vita, J. Chem. Phys. 148 (2018) 241736 [C31]
15. [The effect of size and composition on structural transitions in monometallic nanoparticles](#), K. Rossi, L. Pavan, YY Soon, F. Baletto, Eur. Phys. J. B 91 (2018) 33 [C13]
16. [Structure, thermodynamics, and rearrangement mechanisms in gold clusters—insights from the energy landscapes framework](#), D. Schebarchov, F. Baletto, DJ Wales, Nanoscale 10 (2018) 2004-2016 [C22]
17. [A DFT Study on the O₂ Adsorption Properties of Supported PtNi Clusters](#), LO Paz-Borbón, F. Baletto, Inorganics 5 (2017) 43 [C17]

18. [Melting of large Pt@ MgO \(1 0 0\) icosahedra](#), K Rossi, T Ellaby, LO Paz-Borbón, I Atanasov, L Pavan, F Baletto, J. Phys.: Cond. Matt. 29 (2017) 145402 [C18]
19. [Structural stability and uniformity of magnetic Pt₁₃ nanoparticles in NaY zeolite](#), C DiPaola, L Pavan, R D'Agosta, F Baletto, Nanoscale 9 (2017) 15658 [C8]
20. [The effect of chemical ordering and lattice mismatch on structural transitions in phase segregating nanoalloys](#), K Rossi, F Baletto, PCCP 19 (2017), 11057, -Selected as HOT PAPERS for 2017 PCCP [C13]
21. ["Get in Touch and Keep in Contact": Interface Effect on the Oxygen Reduction Reaction \(ORR\) Activity for Supported PtNi Nanoparticles](#), GG Asara, LO Paz-Borbón, F Baletto, ACS Catalysis 6 (2016), 4388 [C36]
22. [Controlling Structural Transitions in AuAg Nanoparticles through Precise Compositional Design](#), AL Gould, K Rossi, CRA Catlow, F Baletto, AJ Logsdail, J. Phys. Chem. Lett. 7 (2016), 4414 [C18]
23. [Geometrical effects on the magnetic properties of nanoparticles](#), C Di Paola, R D'Agosta, F Baletto, Nano letters 16 (2016) 2885 [C36]
24. [Metallic nanoparticles meet metadynamics](#) L Pavan, K Rossi, F Baletto, J. Chem. Phys. 143 (2015) 184304 [C24]
25. [Doped golden fullerene cages](#), F Baletto, R Ferrando, PCCP17 (2015), 28256 [C13]
26. [Multiscale approach for studying melting transitions in CuPt nanoparticles](#), L Pavan, F Baletto, R Novakovic, PCCP 17 (2015), 28364 [C21]
27. [The effect of dispersion correction on the adsorption of CO on metallic nanoparticles](#), JBA Davis, F Baletto, RL Johnston, J. Phys. Chem. A 119 (2015) 9703 [C50]
28. [Chemical order and magnetic properties in small M_x2N₂ nanoalloys](#), C DiPaola, F Baletto, Eur. Phys. J D 67 (2013) 49 [C13]
29. [Sampling the energy landscape of Pt₁₃ with metadynamics](#), L Pavan, C DiPaola, F Baletto, Eur. Phys. J D 67 (2013) 24 [C19]
30. [A novel structural motif for free CoPt nanoalloys](#), I Parsina, C DiPaola, F Baletto, Nanoscale 4 (2012) 1160 [C25]
31. [Oxygen adsorption on small PtNi nanoalloys](#), C di Paola, F Baletto, PCCP 13 (2011) 7701 [C41]
32. [Tailoring the structural motif of AgCo nanoalloys: core/shell versus Janus-like](#), I Parsina, F Baletto, J. Phys. Chem. C 114 (2010) 1504-1511 [C90]
33. [CCl₄ dissociation on the ice Ih surface: an excess electron mediated process](#), SK Bhattacharya, JM Finn, VP Diep, F Baletto, S Scandolo, PCCP 12 (2010) 13034 [C8]
34. [A Dynamic Landscape from Femtoseconds to Minutes for Excess Electrons at Ice-Metal Interfaces](#), U. Bovensiepen, C Gahl, J Stahler, M Bockstedte, M Meyer, F Baletto, S Scandolo, X-Y Zhu, A. Rubio, M. Wolf, J. Phys. Chem. C 113 (2009), 979-988 [C76]
35. [Far-infrared absorption of water clusters by first-principles molecular dynamics](#), MS Lee, F Baletto, DG Kanhere, S Scandolo, J. Chem. Phys.128 (2008), 214506
36. [Finite-temperature effects on the stability and infrared spectra of HCl-\(H₂O\)₆ clusters](#), UFT Ndongmouo, MS Lee, R Rousseau, F Baletto, S Scandolo, J. Phys. Chem. A 111 (2007), 12810-12815
37. [Surface trapped excess electrons on ice](#), F Baletto, C Cavazzoni, S Scandolo, Phys. Rev. Lett. 95 (2005) 176801 [C62]
38. [Single impurity effect on the melting of nanoclusters](#), C Mottet, G Rossi, F Baletto, R Ferrando, Phys. Rev. Lett. 95 (2005), 035501 [C203]
39. [Structural properties of nanoclusters: Energetic, thermodynamic, and kinetic effects](#), F Baletto, R Ferrando, Rev. Mod. Phys. 77 (2005), 371-Selected as Emerging paper by Reuters in 2008 [This review contains the first prediction of how kinetic processes influences the formation of nanoclusters. The reference paper to address kinetics effect in monometallic systems. Selected to appear in the Emerging Research Fronts Paper in the field of Chemistry, over 6-year period, 2002-2008, with the interview was published on the ScienceWatch.com website on October 2008: <http://sciencewatch.com/sciencewatch/dr/erf/2008/08octerf/08octerfFerrET/>.](#) [C1865]
40. [Melting of metallic nanoclusters: alloying and support effects](#) C Mottet, J Goniakowski, G Rossi, R Ferrando, F Baletto, Annales de Chimie-Science des Matériaux 30 (2005), 303
41. [Amorphization mechanism of icosahedral metal nanoclusters](#), E Apra, F Baletto, R Ferrando, A Fortunelli, Phys. Rev. Lett. 93 (2004) 065502 [C114]
42. [Dynamical effects in the formation of magic cluster structures](#), F Baletto, A Rapallo, G Rossi, R Ferrando, Phys. Rev. B 69 (2004) 235421 [C69]
43. [Energetics of fcc and decahedral nanowires of Ag, Cu, Ni, and C₆₀: a quenched molecular dynamics study](#), GE Tommei, F Baletto, R Ferrando, R Spadacini, A Danani, Phys. Rev. B 69 (2004), 115426

44. [Growth and energetic stability of AgNi core-shell clusters](#), F Baletto, C Mottet, A Rapallo, G Rossi, R Ferrando, Surf. Sc. 566, (2004) 192-196 [C72]
45. [Magic polyicosahedral core-shell clusters](#), G Rossi, A Rapallo, C Mottet, A Fortunelli, F Baletto, R Ferrando, Phys. Rev. Lett. 93 (2004) 105503 [C390]
46. [Modeling free and supported metallic nanoclusters: structure and dynamics](#), C Mottet, J Goniakowski, F Baletto, R Ferrando, G Treglia, Phase Transitions 77 (2004), 101-113 [C109]
47. [Adsorption and diffusion on nanoclusters of C60 molecules](#), F Baletto, JPK Doye, R Ferrando, C Mottet, Surf. Sc. 532, (2003) 898
48. [Time evolution of Ag-Cu and Ag-Pd core-shell nanoclusters](#), F Baletto, C Mottet, R Ferrando, Eur. Phys. J. D 24 (2003) 233
49. [Growth of three-shell onionlike bimetallic nanoparticles](#), F Baletto, C Mottet, R Ferrando, Phys. Rev. Lett. 90 (2003), 135504 [C268]
50. [Growth simulations of silver shells on copper and palladium nanoclusters](#), F Baletto, C Mottet, R Ferrando, Phys. Rev. B 66 (2002) 155420 [C194]
51. [Freezing of silver nanodroplets](#), F Baletto, C Mottet, R Ferrando, Chem. Phys. Lett. 354 (2002), 82 [C68]
52. [Crossover among structural motifs in transition and noble-metal clusters](#), F Baletto, R Ferrando, A Fortunelli, F Montalenti, C Mottet, J. Chem. Phys. 116 (2002) 3856 [C470]
53. [Evidence of kinetic trapping in clusters of C 60 molecules](#), F Baletto, JPK Doye, R Ferrando, Phys. Rev. Lett. 88 (2002), 075503
54. [Growth simulations of silver shells on copper and palladium nanoclusters](#), F. Baletto, C. Mottet, R. Ferrando, Phys. Rev. B 66 (2002), 1
55. [Non-crystalline structures in the growth of silver nanoclusters](#), F Baletto, C Mottet, R Ferrando, Eur. Phys. J. D 16 (2001) 25
56. [Island adsorption and adatom diffusion on 3D non-crystalline silver nanoclusters](#), F Baletto, R Ferrando, Surf. Sc. 490 (2001) 361
57. [Microscopic mechanisms of the growth of metastable silver icosahedra](#), F Baletto, C Mottet, R Ferrando, Phys. Rev. B 63 (2001), 155408 [C235]
58. [Reentrant morphology transition in the growth of free silver nanoclusters](#) F Baletto, C Mottet, R Ferrando, Phys. Rev. Lett. 84 (2000), 5544 [C159]
59. [Diffusion of one-dimensional clusters on Au and Pt \(110\)\(1x 2\)](#), F Montalenti, F Baletto, R Ferrando, Surf. Sc. 454, (2000) 575
60. [Molecular dynamics simulations of surface diffusion and growth on silver and gold clusters](#), F Baletto, C Mottet, R Ferrando, Surf. Sc. 446 (2000), 31 [C119]

Article Editorials/Outreach

61. [Shaping nanocatalysts](#), F. Baletto & R.L. Johnson, Eur. Phys. J. B (2019) 92: 148, July 2019
62. [Geometric control of noble-metal nanoparticles](#), R. D'Agosta & F. Baletto, MappingIgnorance.org, 2018
63. [Catalysis bit by bit](#), F. Baletto & R.L. Johnston, Research Futures, Oct 2017
64. [Modelling 'Magic': the Search for Nanocatalysts](#), F. Baletto, SES interview, May 2017
65. [2nd TYC workshop on energy materials](#), F Baletto, J Blumberger, A Shluger, PCCP15 (2013), 4475
66. [1st TYC workshop on energy materials](#), J Blumberger, F Baletto, A Shluger, PCCP13 (2011), 7602
67. Article on Chemical World, <https://www.chemistryworld.com/news/gold-melted-at-room-temperature-using-electric-fields/3009802.article>
68. KCL representative at Japanese Embassy, personal [interview](#) at Physics World

Book Chapters

- [Nanoalloys for energy applications](#), F. Baletto, C. R. Miranda, V. A. Rigo and K. Rossi, Chapt. 9, 347-280, "Nanoalloys: from fundamentals to emergent application, 2nd edition, Ed. F. Calvo, Elsevier 2020
- [Modelling Janus Nanoparticles](#), F Baletto, chapter in 'Metal Clusters and Nanoalloys', 243-273; Springer, NY (2013)
- [Growth simulations of nanoclusters](#), F Baletto, R Ferrando, AC Levi, chapter on Encyclopaedia of Nanoscience and Nanotechnology, 3 (2004), 865-890