

# Publications of Prof. Dr. Samir Lounis

42 publications in peer reviewed journals (2 in Science, 2 in Nature Physics, 5 in Nature Communications and 6 in Physical Review Letters), 4 papers under review, 4 review articles, two book contributions, one popular scientific article, one organized workshop (Workshop on Spin-Dynamics, 21 Nov. 2011, Jülich), organization of a focus session (Magnetic excitations: from Surfaces down to adatoms, 2013, Regensburg) at the March Meeting of the German Physical Society, 42 Invited talks.

## I- Submitted manuscripts (with hyperlinks)

[46] Impact of zero-point spin-fluctuations on the magnetic properties of adatoms, J. Ibanez-Azpiroz, M. dos Santos Dias, S. Blügel, **S. Lounis**, submitted to Nature Communications (2015)

[45] RKKY-like contributions to the magnetic anisotropy energy: 3d adatoms on Pt(111) surface, M. Bouhassoune, M. dos Santos Dias, B. Zimmermann, P. H. Dederichs, **S. Lounis**, submitted to Phys. Rev. B (2015), ArXiv:1511.00232

[44] Microscopic theory of the residual surface resistivity of Rashba electrons, J. Bouaziz, **S. Lounis**, S. Blügel, H. Ishida, arXiv:1509.02701 (2015)

[43] Strong correlation effects in theoretical STM studies of magnetic adatoms, H. T. Dang, M. dos Santos Dias, A. Liebsch, **S. Lounis**, ArXiv:1510.07427 (2015)

## II- Peer-reviewed Publications (with hyperlinks; 10 important publications marked with a double asterisk)

[42] Spin excitations in 3d transition-metal adatoms on Pt(111): Observable with inelastic scanning tunneling spectroscopy or not? B. Schweflinghaus, M. dos Santos Dias, **S. Lounis**, accepted in Phys. Rev. B (2016), ArXiv:1511.02469

[41] Dynamical current-induced ferromagnetic and antiferromagnetic resonances, F. S. M. Guimarães, **S. Lounis**, A. T. Costa, R. B. Muniz, Phys. Rev. B **92**, 220410(R) (2015)

[40] Tailoring the chiral magnetic interaction between two individual atoms, A. Khajetoorians, M. Steinbrecher, M. Ternes, M. Bouhassoune, M. dos Santos Dias, **S. Lounis**, J. Wiebe, R. Wiesendanger, Nature Communications, accepted (2015)

[39] Can spin-sensitive tunneling spectroscopy detect the magnetism of a single 4f atom? A. Khajetoorians, M. Steinbrecher, A. Sonntag, M. dos Santos Dias, M. Bouhassoune, **S. Lounis**, J. Wiebe, R. Wiesendanger, Nature Communications, accepted (2015)

[38] \*\*Perpendicular reading of single confined magnetic skyrmions, D. M. Crum, M. Bouhassoune, J. Bouaziz, B. Schweflinghaus, S. Blügel, **S. Lounis**, Nature

Communications **6**, 8541 (2015)

[37] Relativistic dynamical spin-excitations of adatoms,  
M. dos Santos Dias, B. Schweflinghaus, S. Blügel, **S. Lounis**, Phys. Rev. B **91**, 075405 (2015)

[36] Calculation of transverse dynamical magnetic susceptibilities from regular static density functional theory: Application to the evaluation of damping and g-shifts of spin-excitations,  
**S. Lounis**, M. dos Santos Dias, B. Schweflinghaus, Phys. Rev. B **91**, 104420 (2015)

[35] \*\*Quantum well states and amplified spin-dependent Friedel oscillations in thin films,  
M. Bouhassoune, B. Zimmermann, Ph. Mavropoulos, D. Wortmann, P. H. Dederichs, S. Blügel, **S. Lounis**, Nature Communications **5**, 5558 (2014)

[34] Interplay between Kondo effect and Ruderman-Kittel-Kasuya-Yosida interaction, H. Prüser, P. E. Dargel, M. Bouhassoune, R. G. Ulbrich, T. Pruschke, **S. Lounis**, M. Wenderoth, Nature Communications **5**, 5417 (2014)

[33] Theoretical probing of inelastic spin-excitations in adatoms on surfaces,  
**S. Lounis**, B. Schweflinghaus, M. dos Santos Dias, M. Bouhassoune, R. B. Muniz, A. T. Costa, Invited Review, Surface Science **630**, 317 (2014)

[32] \*\*Renormalization of electrons self-energies via their interaction with spin excitations: A first-principles investigation,  
B. Schweflinghaus, M. dos Santos Dias, A. T. Costa, **S. Lounis**, Phys. Rev. B **89**, 235439 (2014)

[31] Non-collinear magnetism induced by frustration in transition-metal nanostructures deposited on surfaces,  
**S. Lounis**, Review article, J. Phys.: Condens. Matter **26**, 273201 (2014)

[30] Design of magnetic textures of nanocorrals with an extra adatom,  
N. P. Konstantinidis, **S. Lounis**, Phys. Rev. B **88**, 184414 (2013)

[29] \*\*Spin-excitations of individual Fe atoms on Pt(111): Impact of the site-dependent giant substrate polarization,  
A. A. Khajetoorians, T. Schlenk, B. Schweflinghaus, M. dos Santos Dias, M. Steinbrecher, M. Bouhassoune, **S. Lounis**, J. Wiebe, R. Wiesendanger, Phys. Rev. Lett. **111**, 157204 (2013)

[28] Parity effect in ground state localization of antiferromagnetic chains coupled to a ferromagnet,  
S. Holzberger, T. Schuh, S. Blügel, **S. Lounis**, W. Wulfhchel, Phys. Rev. Lett. **110**, 157206 (2013), Editor's suggestion.

[27] \*\*Current-driven spin dynamics of artificially constructed quantum magnets,  
A. A. Khajetoorians, B. Baxevanis, C. Hübner, T. Schlenk, S. Krause, T. Wehling, **S. Lounis**, A. Lichtenstein, D. Pfannkuche, J. Wiebe, R. Wiesendanger, Science **339**, 55 (2013).

[26] Lifetime reduction of Cu, Ag, and Au(111) surface states caused by impurity scattering,  
S. Heers, Ph. Mavropoulos, **S. Lounis**, R. Zeller, S. Blügel, Phys. Rev. B, **86**, 125444 (2012).

[25] \*\*Adatom induced skyrmion-like spin structures in two-dimensional confined electron

gas,

S. Lounis, A. Bringer, S. Blügel, Phys. Rev. Lett. **108**, 207202 (2012).

[24] Atom-by-atom engineering and magnetometry of tailored nanomagnets,  
A. A. Khajetoorians, J. Wiebe, B. Chilian, S. Lounis, S. Blügel, R. Wiesendanger, Nature Physics **8**, 497 (2012).

[23] Anomalously large g-factor of single atoms adsorbed on a metal substrate,  
B. Chilian, A. A. Khajetoorians, S. Lounis, A. T. Costa, D. L. Mills, J. Wiebe, R. Wiesendanger, Phys. Rev. B, Brief Report, **84**, 212401 (2011).

[22] \*\*Itinerant nature of atom-magnetization excitation by tunneling electrons,  
A. A. Khajetoorians, S. Lounis, B. Chilian, A. T. Costa, L. Zhou, D. L. Mills, R. Wiesendanger and J. Wiebe, Phys. Rev. Lett. **106**, 037205 (2011).

[21] Theory of local dynamical magnetic susceptibilities from the Korringa- Kohn-Rostoker green function method,  
S. Lounis, A. T. Costa, R. B. Muniz, and D. L. Mills, Phys. Rev. B **83**, 035109 (2011), Editor's suggestion.

[20] Spin-polarization at the (111) surface of platinum induced by the proximity to cobalt nanostripes,  
Focko Meier, S. Lounis, L. Zhou, J. Wiebe, S. Heers, Ph. Mavropoulos, P. H. Dederichs, S. Blügel and R. Wiesendanger, Phys. Rev. B **83**, 075407 (2011).

[19] Theory of real space imaging of Fermi surface by STM,  
S. Lounis, P. Zahn, A. Weismann, M. Wenderoth, R. G. Ulbrich, P. H. Dederichs and S. Blügel, Phys. Rev. B **83**, 035427 (2011).

[18] Self-assembled nanoscale magnetic networks on surfaces: Fundamental interactions and functional properties,  
C. Carbone, S. Gardonio, P. Moras, S. Lounis, M. Heide, G. Bihlmayer, N. Atodiresei, P. H. Dederichs, S. Blügel, S. Vlaic, A. Lehnert, S. Ouazi, S. Rusponi, H. Brune, J. Honolka, A. Enders, K. Kern, S. Stepanow, C. Krull, T. Balashov, A. Mugarza, and P. Gambardella, Advanced Functional Materials **21** (7), 1212 (Sp. Iss.) (2011).

[17] Magnetization relaxation in monoatomic magnetic chains on surfaces studied by classical spin-dynamics simulations,  
D. S. G. Bauer, Ph. Mavropoulos, S. Lounis, S. Blügel, J. Phys.: Condens. Matter **23** 394204 (2011)

[16] Mapping the magnetic exchange interactions from first principles: Anisotropy anomaly and application to Fe, Ni, and Co,  
S. Lounis, P. H. Dederichs, Phys. Rev. B (R) **82** 180404 (2010).  
Editor's suggestion.  
Selected by Virtual Journal of Nanoscale Science & Technology **22**, 21 (2010)

[15] \*\*Dynamical magnetic excitations in nanostructures deposited on surfaces,  
S. Lounis, A. T. Costa, R. B. Muniz, D. L. Mills, Phys. Rev. Lett. **105**, 187205 (2010).

[14] Spin orbit coupling and spin waves in ultrathin ferromagnets: The spin wave Rashba

effect,

A. T. Costa, R. B. Muniz, **S. Lounis**, A. B. Klautau, D. L. Mills, Phys. Rev. B **82**, 014428 (2010).

[13] **\*\*Strength and directionality of surface Ruderman-Kittel-Kasuya-Yosida interaction mapped on the atomic scale,**

L. Zhou, J. Wiebe, **S. Lounis**, E. Vedmedenko, F. Meier, P. H. Dederichs, S. Blügel and R. Wiesendanger, Nature Physics **6**, 187 (2010)

Selected by Virtual Journal of Nanoscale Science & Technology **21**, 11 (2010)

[12] Exchange coupling in transition-metal nano-clusters on Cu(001) and Cu(111) surfaces, Ph. Mavropoulos, **S. Lounis**, S. Blügel, Physica Status Solidi (b) **247**, 1187 (2010)

[11] **\*\*Seeing the Fermi-surface in real space by nanoscale electron focusing,**

A. Weismann, M. Wenderoth, **S. Lounis**, P. Zahn, R. G. Ulbrich, N. Quaas, P. H. Dederichs, S. Blügel

Science **323**, 1190 (2009)

Selected by Virtual Journal of Nanoscale Science & Technology **19**, 10 (2009)

[10] Magnetism of nanowires driven by novel even-odd effects,

**S. Lounis**, P. H. Dederichs and S. Blügel

Phys. Rev. Lett. **101**, 107204 (2008); (Cover page of Phys. Rev. Lett.)

Selected by Virtual Journal of Nanoscale Science & Technology **18**, 12 (2008)

[9] Noncollinear magnetism of Cr nanostructures on Fe<sub>3ML</sub>/Cu(001): a first-principles and experimental investigation,

**S. Lounis**, M. Reif, Ph. Mavropoulos, L. Glaser, P. H. Dederichs, M. Martins, S. Blügel and W. Wurth

Eur. Phys. Lett. **81**, 47004 (2008)

[8] Noncollinear magnetism of Cr and Mn nanoclusters on Ni(111): Changing the magnetic configuration atom by atom,

**S. Lounis**, Ph. Mavropoulos, R. Zeller, P. H. Dederichs and S. Blügel

Phys. Rev. B **75**, 174436 (2007)

[7] Surface state scattering by atomic-scale clusters on noble metals,

**S. Lounis**, Ph. Mavropoulos, P. H. Dederichs and S. Blügel

Phys. Rev. B **73**, 195421 (2006)

Selected by Virtual Journal of Nanoscale Science & Technology, **13** (2006), 22

[6] Fe clusters on Ni and Cu: size and shape dependence of the spin moment,

Ph. Mavropoulos, **S. Lounis**, R. Zeller, and S. Blügel,

Appl. Phys. A, **82**, 103 (2006)

[5] Noncollinear Korringa–Kohn–Rostoker Green function method:

Application to 3d nanostructures on Ni(001),

**S. Lounis**, Ph. Mavropoulos, P. H. Dederichs and S. Blügel,

Phys. Rev. B **72**, 224437 (2005)

[4] Antiferromagnetic polarization at Mn/V(001) interfaces,

B. Belhadji, **S. Lounis**, M. Benakki, and C. Demangeat,

Phys. Rev. B. **69**, 064431 (2004)

[3] Ferromagnetic stabilization of ordered B2 FeRh thin films,  
**S. Lounis**, M. Benakki, and C. Demangeat,  
Phys. Rev. B **67**, 094432 (2003)

[2] Ab initio study of the dead magnetic Ni layers at the Ni/Pt(111) interface,  
**S. Lounis**, M. Benakki, S. Bouarab and C. Demangeat,  
Surf. Sci. **518**, 57 (2002)

[1] Ab initio study of the magnetic configurations on the (001) surfaces of binary FePd and FeRh ordered alloys.  
C. Dahmoune, **S. Lounis**, M. Talanana, M. Benakki, S. Bouarab and C. Demangeat,  
J. M. M. M. **240**, 368 (2002).

### III- Dissertations, Contributions to Books and Popular Scientific Articles (with hyperlinks)

[9] Theory of scanning tunneling microscopy,  
**S. Lounis**  
Contribution to the 45<sup>th</sup> IFF Spring School in Forschungszentrum Jülich, 2014  
Computing Solides - Models, ab initio methods and supercomputing  
S. Blügel, V. Meden, N. Helbig, D. Wortmann (editors)  
ISSN 1866-1807; ISBN 978-3-89336-912-6

[8] Non-collinear magnetism induced by frustration in transition-metal nano-structures deposited on surfaces,  
**S. Lounis**, Ph. Mavropoulos,  
Invited review article,  
Highlight **106** of the  $\Psi_k$  Newsletter August (2011)

[7] Report on the  $\Psi_k$  2010 Conference in Berlin,  
**S. Lounis**,  
Invited report,  
 $\Psi_k$  Newsletter **101**, October 2010

[6] Domino behavior in nanowires,  
**S. Lounis**, P. H. Dederichs, S. Blügel,  
Scientific Report of the Jülich's Institute of Solid State Research, (2008/2009)

[5] Frustration and dance floors: Engineering nano-concepts with quantum mechanics,  
**S. Lounis**,  
Prized Popular Scientific Article,  
Günter-Leibfried-Prize, Forschungszentrum Jülich, 2008

[4] Theory of magnetic transition metal nanoclusters deposited on surfaces,  
**S. Lounis**,  
PhD dissertation written in Forschungszentrum Jülich and defended in RWTH Aachen,  
Schriften des Forschungszentrum Jülich, 2007  
Collection Matter and Material  
Volume **41**

ISBN 978-3-89336-501-2

[3] The Korringa-Kohn-Rostoker (KKR) Green function method:  
II. Impurities and clusters in the bulk and on surfaces,  
P. H. Dederichs, **S. Lounis**, R. Zeller,  
Contribution to NIC-Winterschool in Forschungszentrum Jülich, 2006  
Computational nanoscience: Do it yourself!  
J. Grotendorst, S. Blügel, D. Marx (editors)  
NIC Series Volume **31**, pp.279-298  
ISBN 3-00-017350-17350-1

[2] Noncollinear magnetism in  $3d$  nanostructures on Ni(001) and on  $\text{Fe}_{3ML}/\text{Cu}(001)$ ,  
**S. Lounis**, Ph. Mavropoulos, P. H. Dederichs and S. Blügel,  
Scientific Report of the Jülich's Institute of Solid State Research, 42 (2004/2005)

[1] Study of the magnetic configurations of FeRh binary ordered alloy and Ni/Pt multilayers  
by TB-LMTO method,  
**S. Lounis**,  
Magister Dissertation (2002), Mouloud Mammeri University, Tizi-Ouzou (Algeria) and IPCMS  
(CNRS), Strasbourg (France).

# Communications of Prof. Dr. Samir Lounis

## • Invited Talks

[42] Dynamical spin-excitations in itinerant adatoms and nanostructures, Cecam workshop on “Exploration of ultra-fast timescales using time dependent density functional theory and quantum optimal control theory”, EPFL, Lausanne, Switzerland, Sep. 28th–Oct. 2nd, 2015

[41] Ab-initio investigation of dynamical spin excitations in adatoms on surfaces, Psi-k Conference, San Sebastian, Spain, Sep. 6th–10th, 2015

[40] First-Principles Description of Dynamical Magnetic Excitations in Itinerant Nanomagnets on Surfaces, Gordon Research Conference: Spin dynamics in nanostructures – Nanoscale spintronics with magnons, phonons, and photons, The Hong Kong University of Science and Technology, China, July 26th–31st, 2015

[39] Dynamical magnetic excitations in itinerant nanomagnets on surfaces: A description from ab-initio, University of Kiel, Germany, April, 2015

[38] Focusing effect in electron-density oscillations , Congrès de Physique et Chimie Quantique, Université Mouloud Mammeri, Tizi-Ouzou, Algeria, March 31st to April 2nd, 2015

[37] Introduction to the Korringa-Kohn-Rostoker Green function method II, Congrès de Physique et Chimie Quantique, Université Mouloud Mammeri, Tizi-Ouzou, Algeria, March 31st to April 2nd, 2015

[36] Introduction to the Korringa-Kohn-Rostoker Green function method I, Congrès de Physique et Chimie Quantique, Université Mouloud Mammeri, Tizi-Ouzou, Algeria, March 31st to April 2nd, 2015

[35] Dynamical magnetic excitations in itinerant nanomagnets on surfaces: A first-principles description, Max-Planck Institute for Solid State Research, Stuttgart, December 10th, 2014

[34] Functional nanoscale structure and probe simulation laboratory, Forschungszentrum Jülich, Jülich, Germany, November 27th, 2014

[33] Dynamical magnetic excitations with spin-orbit interaction in realistic nanostructures, ERC Starting Grant 2014, Brussels, Belgium, September 24th, 2014

[32] Dynamical magnetic excitations of adatoms: Description from first-principles, 2014 spin-polarized scanning tunneling microscopy conference (SP-STM5), Huron, Ohio, July 15th–19th, 2014

[31] Ab-investigation of inelastic magnetic processes measured with scanning tunneling microscopy,

Mouloud Mammeri University, Tizi-Ouzou, Algeria, May 27th, 2014

[30] Theory of scanning tunneling microscopy,  
45<sup>th</sup> IFF Spring School: Computing solids: Models, ab-initio methods and supercomputing,  
Forschungszentrum Jülich, Jülich, Germany, March 10th-21st, 2014

[29] Theory of dynamical magnetic excitations in itinerant nanomagnets,  
Symposium on magnetic and electronic materials, International materials research congress  
(IMRC 2013)-Material Research Society (MRS), Cancun, Mexico, August 11th-15th, 2013

[28] Focusing effect in electron-density oscillations,  
Symposium on magnetic and electronic materials, International materials research congress  
(IMRC 2013)-Material Research Society (MRS), Cancun, Mexico, August 11th-15th, 2013

[27] Theory of dynamical magnetic excitations in itinerant nanomagnets,  
RWTH-Aachen, Germany, July 17th, 2013

[26] Theory of dynamical magnetic excitations in itinerant nanomagnets,  
Computation meets experiment: KKR Green functions for calculations of spectroscopic,  
transport and magnetic properties, University of Warwick, United Kingdom, July 13th-15th,  
2013

[25] Novel Applications 1 Magnetic nanostructures,  
CECAM-supported 'Hands-on' KKR Computational Tutorial, University of Warwick, United  
Kingdom, July 8th-12th, 2013

[24] Theory of dynamical magnetic excitations in itinerant nanomagnets,  
School for master in physics nanomaterials & Institute of molecules and materials, University  
of Le mans, France, May 21st-24th, 2013

[23] Theory of dynamical magnetic excitations in itinerant nanomagnets,  
Focus session on magnetic excitations, German physical society meeting, Regensburg,  
Germany, March 10th-15th, 2013

[22] Theory of dynamical magnetic excitations in itinerant nanomagnets,  
27th Umbrella symposium for the development of joint cooperation ideas focusing on  
nanoscale physics and chemistry as drivers for future technological developments, Jülich  
Research Centre, Jülich, Germany, February 25th-27th, 2013

[21] Theory of dynamical magnetic excitations in adatoms and dimers,  
International Conference on Scanning Probe Spectroscopy and International Workshop on  
Spin-Polarized Scanning Tunneling Microscopy, Timmerdorfer Strand, Baltic Sea, Germany,  
September 9th-12th, 2012

[20] First-principles investigation of dynamical magnetic excitations in adatoms and dimers,  
Theoretical and Experimental Magnetism Meeting, Abingdon, Oxfordshire, UK, June 28th-  
29th, 2012

[19] Dynamical magnetic excitations of nanostructures from first-principles,  
Workshop Spin-dynamics and Kondo effects in STM, University of Hamburg, Germany,  
December 14th-16th, 2011



[18] Magnetic excitations in adatoms on surfaces,  
Workshop on Spin-dynamics at Theory 1 , Forschungszentrum Jülich, Jülich, Germany,  
November 18th, 2011

[17] Investigation of magnetic excitations in adatoms and dimers on metallic surfaces,  
Seminar, Karlsruhe Institute for Technology, University of Karlsruhe, Germany, November 7th,  
2011

[16] Dynamical magnetic excitations of adatoms from first-principles,  
JARA-Fit Science days conference, Schleiden, Germany, October 28th-29th, 2011

[15] Investigation of the intriguing magnetic and electronic behavior at the nanoscale,  
 $\Psi_k$ -2010 Conference, Berlin, Germany, September 12th-16th, 2010  
Invited for the Psi-k Volker Heine young investigator award 2010 from the european Psi-k  
network

[14] Magnetic and electronic properties of nanostructures on surfaces,  
Condensed Matter Seminars, University of California at Irvine, USA, February 3rd, 2010

[13] The intriguing propagation of electrons scattered at atomic-scale defects,  
SFB-668-Kolloquium, University of Hamburg, Germany, December 8th, 2009

[12] Complex magnetic and electronic behavior at the nanoscale,  
Workshop on Nanomaterial Design, Osaka, Japan, August, 2009

[11] Complex magnetic and electronic behavior at the nanoscale,  
CEA-Saclay (SPCSI), Paris, France, June 29th, 2009

[10] Atomic scale mapping of magnetism in adatom nanostructures,  
International Colloquium on Magnetic Films and Surfaces (ICMFS), Berlin, Germany, July  
20th-24th, 2009

[9] Magnetic nanostructures on/below surfaces,  
Workshop on Magnetism in Complex Systems: DFT and beyond, Wien, Austria, April  
16th-18th, 2009

[8] Frustration and dance floors: Engineering nano-concepts with quantum mechanics,  
Invited talk for the Popular Scientific Günter-Leibfried-Prize from the Forschungszentrum  
Jülich, Germany, September 8th, 2008

[7] Magnetic domino effect in finite nanochains,  
International Conference on Clusters at Surfaces, Rostock, Germany, May 26th - 30th, 2008

[6] Theory of magnetic transition metal nanoclusters on surfaces,  
DPG Meeting, Berlin, Germany, February 29th, 2008  
Invited talk for the 2008 ThyssenKrupp Electrical Steel Dissertation prize from the AG  
Magnetismus of the German Physical Society

[5] Complex magnetism of deposited nano-objects on surfaces,  
Quantum Theory of Materials Workshop, Kleinwalsertal, Austria, August 20th - 24th, 2007

[4] Complex magnetism of nanoclusters and nanochains on surfaces,  
University of Hamburg: SFB-668-Kolloquium, Germany, June 14th, 2007

[3] Magnetism of nanoclusters on surfaces,  
Psi-k 2005 Conference, Schwäbich-Gmünd, Germany, September 17th-21th, 2005

[2] Noncollinear magnetic 3d nanostructures on Ni(001),  
Hamburg University, Germany, June 10th, 2004

[1] Magnetic properties of metallic low dimensional systems,  
University of Osnabrück, Germany, April 15th, 2002

## • Talks

[25] On the theory of magnetic excitations probed with STM,  
S. Lounis, A. T. Costa, R. B. Muniz, D. L. Mills, International Conference on Nanoscience  
+ Technology (ICN+T2012), Paris, France, July 23th-27th, 2012

[24] Dynamical magnetic excitations of adatoms on metallic substrates,  
S. Lounis, A. T. Costa, B. Chilian, A. A. Khajetoorians, J. Wiebe, R. Wiesendanger, D. L.  
Mills, DPG Meeting, Berlin, Germany, March 26th-30th, 2012

[23] Dynamical magnetic excitations in adatoms and dimers on metallic surfaces,  
S. Lounis, A. T. Costa, R. B. Muniz, D. L. Mills, APS-March Meeting Boston, Massachus-  
sets, USA, February 27th-March 2nd, 2012

[22] Spin-orbit coupling and spin excitations in nanoscopic structures,  
A. T. Costa, S. Lounis, R. B. Muniz, D. L. Mills, APS-March Meeting Boston, Massachus-  
sets, USA, February 27th-March 2nd, 2012

[21] Dynamical magnetic excitations of adatoms from first-principles,  
S. Lounis, A. T. Costa, R. B. Muniz, D. L. Mills, ACSIN 11, St. Petersburg, Russia, October  
2nd-7th, 2011

[20] Dynamical magnetic excitations of adatoms from first-principles,  
S. Lounis, A. T. Costa, R. B. Muniz, D. L. Mills, ECOSS 28, Wroclaw, Poland, August  
28th-September 2nd, 2011

[19] Skyrmionic like spin-texture of Rashba electron scattering at magnetic adatoms deposited  
on the Au(111) surface,  
S. Lounis, A. Bringer, S. Blügel, APS-March Meeting Portland, Oregon USA, March, 2010

[18] Looking far below surfaces with a scanning tunneling microscope,  
S. Lounis, P. Zahn, P. H. Dederichs, S. Blügel,  
KKR Workshop, Budapest, Hungary, June 12th-14th, 2009

[17] Spin-Orbit coupling effect on surface state ripples,  
S. Lounis, A. Bringer, S. Blügel,  
DPG Meeting, Dresden, Germany, March 22nd-27th, 2009

- [16] Oscillatory indirect exchange in adatom pairs and triples,  
J. Wiebe, L. Zhou, **S. Lounis**, E. Vedmedenko, F. Meier, S. P. H. Dederichs, S. Blügel and R. Wiesendanger,  
DPG Meeting, Dresden, Germany, March 22nd-27th, 2009
- [15] Investigating the spin dynamics in nanostructures at finite temperature,  
D. Bauer, **S. Lounis**, Ph. Mavropoulos, S. Blügel,  
DPG Meeting, Dresden, Germany, March 22nd-27th, 2009
- [14] Lifetime reduction of surface states caused by impurity scattering,  
S. Heers, Ph. Mavropoulos, **S. Lounis**, S. Blügel,  
DPG Meeting, Dresden, Germany, March 22nd-27th, 2009
- [13] Magnetic frustration in nanowires: Domino effect,  
**S. Lounis**, P. H. Dederichs, S. Blügel, American Physical Society Meeting, Pittsburgh PA, USA, March 16th-20th, 2009
- [12] Magnetic domino effects in finite nanochains,  
**S. Lounis**, P. H. Dederichs, S. Blügel,  
25th European Conference on Surface Science, Liverpool, United Kingdom, 27.07.2008 - 01.08.2008
- [11] Strong Even-odd effects in noncollinear magnetism of nanochains  
**S. Lounis**, P. H. Dederichs and S. Blügel,  
DPG Meeting, Regensburg, March 25th - 30th, 2007
- [10] First-principles investigation of complex magnetism of nanostructures on surfaces  
**S. Lounis**, Ph. Mavropoulos, R. Zeller, P. H. Dederichs and S. Blügel,  
Quantum Simulation of Liquids and Solids : Tutorial, Lyon, France, 29.10.2006 - 10.11.2006
- [9] Non-collinear KKR Green function method: Application to 3d nanostructures on surfaces  
**S. Lounis**, Ph. Mavropoulos, R. Zeller, P. H. Dederichs and S. Blügel,  
KKR-Workshop 2006 : University of Bristol, Bristol, United Kingdom, October 20th - 22nd, 2006
- [8] Non-collinear magnetism of Cr and Mn nanoclusters on ferromagnetic surfaces  
Ph. Mavropoulos, **S. Lounis**, P. H. Dederichs, S. Blügel,  
XXII Panhellenic Conference on Solid State Physics and Materials Science, Patra, Greece, 23.09.2006 - 01.10.2006
- [6] Real space imaging of Fermi surface by STM,  
**S. Lounis**, P. Zahn, P. H. Dederichs, S. Blügel,  
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