
Liste des publications - Décembre 2017

Brigitte Leridon

Revue internationale à comité de lecture

- [1] J. Henry, A. Barbu, B. Leridon, D. Lesueur and A. Dunlop "Electron microscopy observations of titanium irradiated with GeV heavy ions", Nuclear Instruments and Methods in Physics Research B 67, 390 (1992)
- [2] B. Leridon and R. Maoli, "Critical Josephson currents as a characterization tool for superconducting junction arrays", J. Appl. Phys. 74, 5648 (1993)
- [3] Egon Marx, Brigitte Leridon, T. R. Lettieri, J.-F. Song, and T. V. Vorburger "Autocorrelation functions from optical scattering for one-dimensionally rough surfaces", Applied Optics 32, 67 (1993)
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- [6] B. Leridon, A. Défossez, J. Dumont, J.P. Contour "Transport measurements in $YBa_2Cu_3O_{7-d}/PrBa_2Cu_3-xGa_xO_{7-d}$ superlattices : experimental evidence for underdoping", Physica C 328, 104 (1999)
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- [10] S. Caprara, M. Grilli, B. Leridon and J. Lesueur, « Extended paraconductivity regime in underdoped cuprates ». Phys. Rev. B. 72, 104509 (2005)
- [11] B. Leridon, J. Lesueur and M. Aprili, « Spin bottleneck due to spin-charge separation in a superconductor », Phys. Rev. B 72, 180505(R) (2005)
- [12] B. Leridon, Tai.-Kai. Ng and C.M. Varma, "Josephson effect for superconductors lacking time-reversal and inversion symmetries", Phys. Rev. Letters 99, 027002 (2007)
- [13] B. Leridon, J. Vanacken, T. Wambecq and V.V. Moshchalkov, "Paraconductivity of underdoped $La_{2-x}Sr_xCuO_4$ thin-film superconductors using high magnetic fields", Phys. Rev. B. 76, 012503 (2007)
- [14] N. Bergeal, J. Lesueur, M. Sirena, G. Faini, M. Aprili, J.P. Contour and B. Leridon "Using ion irradiation to make high-Tc Josephson junctions ", J. Appl. Phys. 102, 083903 (2007)

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- [15] N. Bergeal, J. Lesueur, M. Aprili, G. Faini, J. P. Contour and B. Leridon "Pairing fluctuations in the pseudogap state of copper-oxide superconductors probed by the Josephson effect", *Nature Physics* 4, 608 (2008)
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- [18] J. Biscaras, B. Leridon, D. Colson, A. Forget et P. Monod "Direct evidence of interchange between hole doping and Curie paramagnetism in underdoped $YBa_2Cu_3O_x$ " *Phys. Rev. B* 85, 134517 (2012)
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- [21] Nassima Ouar, Frédéric Schoenstein, Silvana Mercone, Samir Farhat, Benjamin Villero, Brigitte Leridon and Nouredine Jouini, "Spark-plasma-sintering magnetic field assisted compaction of $Co_{80}Ni_{20}$ nanowires for anisotropic ferromagnetic bulk materials", *J. Appl. Phys.* 114, 163907 (2013)
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- [24] K. Riahi, I. Messaoui, W. Cheikhrouhou-Koubaa, S. Mercone, B. Leridon, M. Koubaa, A. Cheikhrouhou, "Effect of synthesis route on the structural, magnetic and magnetocaloric properties of $La_{0.78}Dy_{0.02}Ca_{0.2}MnO_3$ manganite : A comparison between sol-gel, high-energy ball-milling and solid state process", *Journal of Alloys and Compounds*, Volume 688, Part A, 1028 (2016)
- [25] Tuan Mai Kha , Frédéric Schoenstein, Fatih Zighem, Sophie Nowak, Brigitte Leridon, Nouredine Jouini and Silvana Mercone "Effect of stacking faults on the magnetocrystalline anisotropy of hcp Co-based nanowires", *Journal of Magnetism and Magnetic Materials* 422, 221 (2017)
- [26] Silvana Mercone, Mohamed Belmeguenai, Sylvie Malo, Frederic Ott, Frederic Cayrel, Michael Golosovsky, Brigitte Leridon, Carolina Adamo and Philippe Monod. "Investigation of ferromagnetic heterogeneities in $La_{0.7}Sr_{0.3}MnO_3$ thin films", *Journal of Physics D : Applied Physics*, 50, 045001 (2017)
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- [29] Rémi Federicci, B. Bastiste, F. Finocchi, A.F. Popa, L. Brohan, P. Giura, G. Rouse, A.

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Actes de colloques à comité de lecture

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• J. Lesueur, B. Leridon, M. Aprili and X. Grison "Tunneling in high T_c superconducting cuprates", in "The gap symmetry and fluctuations in high-T_c superconductors", J. Bok, Guy Deutscher and Davor Pavuna, Editors. 1998, Plenum Press : London.

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• "Double criticality in the magnetic field-driven transition of a high-TC superconductor", Brigitte Leridon, J. Vanacken, V.V. Moshchalkov, Baptiste Vignolle, Rajni Porwal, R.C. Budhani, arXiv :1306.4583 (2013)

Conférences invitées dans des congrès

(I) : conférences internationales

[1] B. Leridon, P. Febvre, S. George, P. Feautrier, W. R. McGrath and P. Encrenaz, "Josephson noise in SIS receivers". in Fifth International Symposium on Space Terahertz Technology, University of Michigan, Ann Arbor, Michigan, USA (1994) (I)

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[3] B. Leridon, A. Défossez and J.P. Contour, "Normal State Resistivity of $YBa_2Cu_3O_{7-\delta}$ / $PrBa_2Cu_{2.8}Ga_{0.2}O_{7-d}$ c-axis Superlattices : Evidence for an Underdoping Effect of $YBa_2Cu_3O_{7-\delta}$ " MOS'99, Stockholm, Suède (1999) (I)

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- [12] B. Leridon, P. Monod and D. Colson , "Search for a thermodynamic evidence of a phase transition in the pseudogap state of $YBa_2Cu_3O_{6+x}$ ", APS March meeting, Pittsburgh, USA (2009) **(I)**
- [13] J. Vanacken, V.V. Moshchalkov, B. Vignolle, R. Porwal, R. Budhani and B. Leridon, "Double criticality in the magnetic field-driven transition of a high TC superconductor", SHYNED, NanoSC Cost conference, Santa Maria de Castellabate (Italie) (2014) **(I)**
- [14] Clémentine Carbillet, Sergio Caprara, Marco Grilli, Christophe Brun, Tristan Cren, François Debontridder, B. Vignolle, W. Tabis, D. Demaille, L. Largeau, K. Ilin, M. Siegel, Dimitri Rodichev and Brigitte Leridon, "Confinement of superconducting fluctuations due to emergent electronic inhomogeneities in ultrathin NbN", NanoSC Cost workshop, Arcachon (2015) **(I)**
- [15] Clémentine Carbillet, Sergio Caprara, Marco Grilli, Christophe Brun, Tristan Cren, François Debontridder, B. Vignolle, W. Tabis, D. Demaille, L. Largeau, K. Ilin, M. Siegel, Dimitri Rodichev and Brigitte Leridon, "Confinement of superconducting fluctuations due to emergent electronic inhomogeneities in ultrathin NbN", "Superconductivity on the verge", Lorentz center workshop, Leyde, Pays-Bas (2015) **(I)**
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- [17] Brigitte Leridon , "La supraconductivité à haute température critique : où en sommes-nous aujourd'hui ? ", Conférence de l'Union des Professeurs de Spéciale, Paris (2015)
- [18] Brigitte Leridon " Incipient electronic inhomogeneities at the superconductor/insulator transition", in "Probing Superconductivity at the Nanoscale : New advances", NanoSC Cost workshop, Saas-Fee, Suisse (2016) **(I)** *Annulé pour raisons de santé*
- [19] Brigitte Leridon " Exploring electronic inhomogeneities at the superconductor/insulator transition", Superconducting hybrid nanostructures : physics and application, Moscow Institute of Physics and Technology, Moscou, Russie (2016) **(I)**
- [20] Rémi Federicci, Stéphane Holé et Brigitte Leridon "Rb₂Ti₂O₅, a superionic conductor with colossal dielectric constant", région plénière du GDR Meeticc, Latresne, France (2017)
- [21] Brigitte Leridon "Ionic « ferroelectricity » and colossal dielectric constant : when a dielectric is not an insulator", Superstripes 2017, Ischia, Italie (2017) **(I)**
- [22] Brigitte Leridon "Underdoped cuprates : superconductor/insulator transition and quantum critical points", Vortex X, Rhodes, Grèce (2017) **(I)**

Publications de vulgarisation scientifique

- [1] Leridon, B. and J.P. Contour, "Les supraconducteurs à haute température critique et leurs applications", in Techniques de l'Ingénieur. 1999.
- [2] Leridon, B. , T.K. Ng et C.M. Varma, "Effet Josephson pour les supraconducteurs brisant des symétries particulières", Brève sur le site web du CNRS-MPPU, Juillet 07
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