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101. "Phase and vortex dynamics in Josephson junction arrays with percolative disorder"  
J. Affolter, A. Eichenberger, S. Rossé, P. Scheuzger, Ch. Leemann, and P. Martinoli,  
*Physica B* 280, 241 (2000).
102. "Dimensional crossover of the vortex matter in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  films"  
M. Calame, S. Blaser, Ch. Leemann, and P. Martinoli,  
*Physica B* 284-288, 891 (2000).
103. "Two dimensional Josephson junction arrays"  
Piero Martinoli and Christian Leemann,  
*J. Low Temp. Phys.* 118, 699 (2000).
104. "Orientational pinning and transverse voltage: Simulations and experiments in  
Josephson junction arrays"  
V.I. Marconi, S. Candia, P. Balenzuela, H. Pastoriza, D. Dominguez, and P. Martinoli,  
*Phys. Rev. B* 62, 4096 (2000).
105. "Dynamic critical properties of the vortex-glass transition derived from  
angular-dependent properties of  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$  films"  
T. Schneider, G.I. Meijer, J. Perret, J.-P. Locquet, and P. Martinoli,  
*Phys. Rev. B* 63, 144527 (2001).
106. "Collective pinning of a frozen vortex liquid in ultrathin superconducting  $\text{YBa}_2\text{Cu}_3\text{O}_7$   
films"  
M. Calame, S.E. Korshunov, Ch. Leemann, and P. Martinoli,  
*Phys. Rev. Lett.* 86, 3630 (2001).
107. "Observation of Ising-like critical fluctuations in frustrated Josephson junction arrays  
with modulated coupling energies"  
J. Affolter, M. Tesei, H. Pastoriza, Ch. Leemann, and P. Martinoli,  
*Physica C* 369, 313 (2002).
108. "Investigation of vortex dynamics in Josephson junction arrays with magnetic flux  
noise measurements"  
S. Candia, Ch. Leemann, S. Mouaziz, and P. Martinoli,  
*Physica C* 369, 303 (2002).
109. "Dimensional crossover and hidden incommensurability in Josephson junction arrays of  
periodically repeated Sierpinski gaskets"  
R. Meyer, S.E. Korshunov, Ch. Leemann, and P. Martinoli,  
*Phys. Rev. B* 66, 104503 (2002).
110. "Growth of single unit-cell superconducting  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$  films"  
A. Rüfenacht, P. Chappatte, S. Gariglio, Ch. Leemann, J. Fompeyrine, J.-P. Locquet, and  
P. Martinoli,  
*Solid State Electronics* 47, 2167 (2003).
111. "Frustration phenomena in Josephson junction arrays on a dice lattice"  
M.Tesei, R. Théron, and P.Martinoli,  
*Physica C* 437-438, 328 (2006).

112. "Electrostatic Modulation of the Superfluid Density in a Ultrathin  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$  Film"  
A. Rüfenacht, J.-P. Locquet, J. Fompeyrine, D. Caimi, and P. Martinoli,  
*Phys. Rev. Lett.* 96, 227002 (2006).

**Other Publications (96-06) of Martinoli's superconductivity group**

(A. Eichenberger, J. Perret, S.E. Korshunov, V. Marconi)

113. "Imaging of vortices in 2D superconducting arrays: Magnetic decoration and other methods"  
B. Pannetier, A. Bezryadin, and A. Eichenberger,  
*Physica B* 222, 253 (1996).
114. "Local determination of the stacking sequence of layered materials"  
J. Fompeyrine, R. Berger, H.P. Lang, J. Perret, E. Mächler, Ch. Gerber,  
and J.-P. Locquet,  
*Appl. Phys. Lett.* 72, 1697 (1998)
115. "Local determination of the terminating layer of  $\text{SrTiO}_3$ "  
J. Fompeyrine, R. Berger, Ch. Gerber, J. Perret, J.W. Seo, and J.-P. Locquet,  
in "*Superconducting and related oxides: Physics and nanoengineering III*" in Proc. of  
the SPIE Conference (San Diego, USA), vol. 3481, 274 (1998).
116. "Microstructural investigation of  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$  thin films grown by MBE"  
J.W. Seo, J. Perret, J. Fompeyrine, G. Van Tendeloo, and J.-P. Locquet,  
in "*Superconducting and related oxides: Physics and nanoengineering III*" in Proc. of  
the SPIE Conference (San Diego, USA), vol. 3481, 300 (1998).
117. "Doubling the critical temperature of  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$  using epitaxial strain"  
J.-P. Locquet, J. Perret, J. Fompeyrine, E. Mächler, J.W. Seo, and G. Van Tendeloo,  
*Nature* 394, 453 (1998).
118. "Changes of  $T_c$  under epitaxial strain: Implications for the mechanism of  
superconductivity"  
J.-P. Locquet, J. Perret, J.W. Seo, and J. Fompeyrine,  
in "*Superconducting and related oxides: Physics and nanoengineering III*" in Proc. of  
the SPIE Conference (San Diego, USA), vol. 3481, 248 (1998).
119. "Vortex ordering in fully frustrated superconducting systems with dice lattice"  
S.E. Korshunov,  
*Phys. Rev. B.* 63, 134503 (2001).
120. "Low-frequency response of a collectively pinned vortex manifold"  
S.E. Korshunov,  
*Phys. Rev. B.* 63, 174514 (2001).

121. "Fluctuation-dissipation theorem and flux noise in overdamped Josephson junction arrays"  
*S.E. Korshunov*  
Phys. Rev. B 66, 104513 (2002).
122. "Kink pairs unbinding on domain walls and the sequence of phase transitions in fully frustrated XY models"  
*S.E. Korshunov*  
Phys. Rev. Lett. 88, 167007 (2002).
123. "Magnetoinductance of Josephson junction arrays with frozen vortex diffusion"  
*S.E. Korshunov*  
Phys. Rev. B 68, 094512 (2003).
124. "Fluctuation-induced vortex pattern and its disordering in the fully frustrated XY model on a dice lattice"  
*S.E. Korshunov*  
Phys. Rev. B 71, 174501 (2005).
125. "Uniformly Frustrated XY Model without a Vortex-Pattern Ordering"  
*S.E. Korshunov*  
Phys. Rev. Lett. 94, 087001 (2005).
126. "Voltage rectification in two-dimensional Josephson junction arrays"  
Veronica I. Marconi,  
Physica C 437-438, 195 (2006).
127. "Non equilibrium phase diagrams of current driven Josephson junction arrays"  
V.I. Marconi and D. Dominguez,  
Chapter contribution to « *Progress in Josephson Junction Research* », Nova Science Publishers, Inc. (2006), ISBN: 1-60021-184-4. Preprint: cond-mat/0510091.
128. "Rocking ratchets in 2D Josephson networks: collective effects and current reversal"  
Veronica I. Marconi  
Accepted by Phys. Rev. Lett.

## INVITED TALKS (90-06) AT INTERNATIONAL CONFERENCES AND WORKSHOPS

1. Critical phenomena, frustration and disorder in Josephson junction arrays, NATO Advanced Research Workshop on "Microscopic Aspects of Nonlinearity in Condensed Matter", Firenze (Italy), June 1990
2. Superconductivity in periodic, fractal and disordered networks, XXth European Symposium on the Dynamical Properties of Solids, Chexbres (Switzerland), October 1990
3. Superconducting fractal networks, S<sup>4</sup> ONR Workshop: Magnetic Susceptibility of Superconductors and other Spin Systems, Coolfont (West Virginia, USA), May 1991
4. Superconductivity in fractal networks, Workshop on Novel Superconductors: Concepts, Models and Methods, ISI Torino (Italy), October 1991
5. Superconducting arrays, XVth Gwatt Workshop: Phenomenology of Superconductors, Gwatt (Switzerland), October 1991
6.
  1. Experiments probing vortex dynamics and critical phenomena in Josephson junction arrays and
  2. Scaling properties of vortices in superconducting fractal networks,2nd CTP Workshop on Statistical Physics: KT transition and Superconducting Arrays, Seoul (Korea), January 1993
7. Aspects fondamentaux de la physique en deux dimensions dans le réseaux de jonctions Josephson, 1er Séminaire Rhodanien de Physique: La Physique en Deux Dimensions, Dolomieu (France), March 1993
8. Superconducting arrays, 13th General Conference of the Condensed Matter Division of the European Physical Society (EPS), Regensburg (Germany), March-April 1993
9. Vortices and vortex dynamics in 2D superconducting arrays, Adriatico Research Conference on "Vortex Fluctuations in Superconductors", ICTP Trieste (Italy), August 1993
10. Vortex diffusion and frustration phenomena in Josephson junction arrays, NATO Workshop on "Submicron Quantum Dynamics", ICTP-Trieste (Italy), June 1994
11. Frustration phenomena and vortex dynamics in periodic and fractal arrays of Josephson junctions, International Workshop on "Macroscopic Quantum Phenomena and Coherence in Superconducting Networks", Frascati (Italy), March 1995

12. Vortex fluctuations and vortex dynamics in Josephson junction arrays, International Workshop on "Josephson Junction Arrays", Jackson (Wyoming, USA), May 1995
13. Probing phase dynamics in Josephson arrays with regular, fractal and disordered lattice structures, International Workshop on "Josephson Junction Arrays", ICTP Trieste (Italy), August 1995
14. Phase and vortex dynamics in regular and disordered Josephson junction arrays, Euroconference on "Mesoscopic Superconductivity and Josephson Junction Arrays", ISI Torino (Italy), September 1995
15. Superconducting arrays, 5th World Congress on Superconductivity, Budapest (Hungary), July 1996
16. Crossover phenomena in disordered and fractal Josephson junction arrays, Chernogolovka 97 on "Mesoscopic and strongly correlated electron systems" Moscow, June 1997
17. Critical phenomena in Josephson junction arrays, International workshop on "High-temperature Superconductivity", Telluride (Colorado, USA), August 1997
18. Probing fluctuations, frustration, and disorder in classical Josephson junction arrays, Euroschool on "Superconductivity in networks and mesoscopic systems", Pontignano (Italy), September 1997
19. Long-range Coulomb interaction and superconducting phase coherence in  $\text{YBa}_2\text{Cu}_3\text{O}_7/\text{PrBa}_2\text{Cu}_3\text{O}_7$  heterostructures, SPIE's 43rd Annual Meeting, Symposium on "Superconducting superlattices: Native and artificial", San Diego (California, USA), July 1998 (presented by *J. Perret*)
20. Observation of Ising-like critical fluctuations in fully frustrated Josephson junction arrays with modulated couplings, TMR workshop on "Dynamics of superconducting nanocircuits", Saint-Pierre de la Chartreuse (France), August 1998
21. Josephson junction arrays: Ideal laboratories for low-dimensional physics, Symposium on mesoscopic physics, Spring meeting of the Swiss Physical Society (Bern), February 1999
22. Josephson junction arrays: Unique laboratories for low-dimensional physics, Physik Kolloquium ETHZ-UniZH (Zürich), May 1999
23. Phase and vortex dynamics in Josephson junction arrays with percolative disorder, 22<sup>nd</sup> International Conference on Low Temperature Physics (LT22) (Helsinki, Finland), August 1999 (presented by *J. Affolter*)

24. Disorder in Josephson Junction Arrays: Phase and Vortex Dynamics near the Percolation Threshold,  
Euroconference on "Vortex Matter in Superconductors" (Crete, Greece), September 1999
25. Quantum phase fluctuations near the superconductor-insulator transition of  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$  thin films in the extreme underdoped regime,  
1999 Swiss Workshop on Superconductivity and Materials with Novel Electronic Properties (Les Diablerets), September 1999 (presented by *J. Perret*)
26. Phase and vortex dynamics in disordered Josephson junction arrays close to the percolation threshold,  
International Seminar on "Two-dimensional Metal and Superconducting Systems" (Moscow/Cernogolovka, Russia), December 1999
27. Josephson junction arrays with percolative disorder,  
Workshop on "Inhomogeneous Superconductivity", Université de Bordeaux, (France), April 2000
28. Collective pinning of a frozen two-dimensional vortex liquid in ultrathin  $\text{YBa}_2\text{Cu}_3\text{O}_7$  films,  
The Joint Vortex Physics and ESF-Vortex Matter Workshop, Lunteren (The Netherlands), August 2000
29. Disordered superconductors,  
Workshop on "Trends in condensed matter physics", Ascona-Monte Verità (Switzerland), September 2000
30. Frustration phenomena and fluctuations in Josephson junction arrays with fractal and percolative structures,  
Workshop on "Vortex matter in inhomogeneous superconductors", Bordeaux (France), December 2000
31. Influence of of percolative disorder on the dynamic response of classical Josephson junction arrays,  
Miniworkshop on "Josephson Junction Arrays for Quantum Computing", Institut für Theoretische Physik, ETHZ, June 2001
32. Disorder in two-dimensional superconductors,  
Seminar, DPMC, University of Geneva, May 2001
33. Vortices in disordered two-dimensional superconductors  
2<sup>nd</sup> European Conference on "Vortex matter in superconductors", Creta (Greece), September 2001
34. Influence of percolative disorder on the dynamic response of Josephson junction arrays,  
2001 Swiss workshop on materials with novel electronic properties, Les Diablerets (Switzerland), October 2001



35. Dimensionality crossover in Josephson junction arrays with fractal and percolative structures,  
TMR-SQUBIT Workshop, Chalmers University of Technology, Göteborg (Sweden), December 2001
36. Dynamic freezing of a two-dimensional vortex liquid,  
TMR-SQUBIT Workshop, Chalmers University of Technology, Göteborg (Sweden), December 2001
37. Dimensional crossover and hidden incommensurability in Josephson junction arrays of periodically repeated Sierpinski gaskets,  
Workshop on "Superconductors and hybrid structures at extreme scales and conditions", Lorentz Centre, Leiden University (The Netherlands), April 2002
38. Euclidian-fractal crossover and hidden incommensurability in Josephson junction arrays of periodically repeated Sierpinski gaskets,  
Seminar, Digital Materials Laboratory, RIKEN (The Institute of Physical and Chemical Research), Hirosawa (Japan), August 2002
39. Hidden disorder in regular arrays of proximity-effect coupled Josephson junctions,  
Workshop on "Vortices in Josephson systems and nanostructures", Acquafredda di Maratea (Italy), September 2002
40. Glass-like vortex dynamics in regular arrays of proximity-effect coupled SNS Josephson junctions,  
MTI Workshop on "Nanoscale superconductivity and magnetism" Argonne National Laboratory, Argonne-Chicago (IL, USA), November 2002
41. Glass-like vortex dynamics in nominally unfrustrated regular arrays of proximity-effect coupled SNS Josephson junctions,  
Seminar, University of Illinois, Urbana-Champaign (IL, USA), November 2002
42. Vortex glass dynamics in Josephson junction arrays,  
NATO Advanced Research Workshop on "Coherent charge and spin transport on a nanoscale", Chernogolovka (Moscow, Russia), June 2003
43. Frustration phenomena in Josephson junction arrays on a dice (T3) lattice  
International workshop on « Nanostructured Superconductors : From fundamentals to applications », Münstereifel (Germany), May 2004
44. The interplay of frustration and geometry in Josephson junction arrays on a dice lattice,  
E-MRS 2004 Fall Meeting, Warsaw (Poland), September 2004
45. Frustration phenomena in Josephson junction arrays on a dice lattice,  
International workshop on « Arrays of Quantum Dots and Josephson Junctions », Medena (Croatia), October 2004
46. The interplay of frustration and geometry in Josephson junction arrays on a dice lattice,  
4th Argonne National Laboratory International workshop on « Nanoscale Superconductivity and Magnetism », Argonne (USA), November 2004

47. Les réseaux de jonctions Josephson : Des laboratoires pour l'étude de concepts fondamentaux en physique de la matière condensée et en mécanique statistique, GRD de Physique Quantique Mésoscopique, Aussois (France), December 2004
48. The interplay of frustration and geometry in Josephson junction arrays, ESF summer school on « Arrays of Quantum Dots and Josephson junctions », Kiten (Bulgaria), June 2005
49. Electrostatic modulation of the superfluid response of ultrathin superconducting  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$  films, Joint JSPS and ESF Conference on « Vortex Matter in Nanostructured Superconductors (Vortex IV) », Creta (Greece), September 2005
50. Electrostatic Modulation of the Superfluid Density of Ultrathin Superconducting  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$  Films in the Underdoped Regime, 12th International Workshop on Oxide Electronics, Chatham (MA,USA), October 2005
51. Electrostatic Modulation of the Superfluid Response of Ultrathin Superconducting  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$  Films, International Argonne Workshop on Nanophysics, Argonne National Laboratory (IL, USA), November 2005
52. Probing Superconductivity in Copper-Oxide Films with the Electric-Field Effect, Nanoscale Superconductivity and Magnetism (NSM2006), Leuven (Belgium), July 2006
53. Probing the superfluid properties of ultrathin copper-oxide superconducting films with the electric-field effect, 8th International Conference on Materials and Mechanisms of Superconductivity and High Temperature Superconductors (M2S-HTSC-VIII), Dresden (Germany), July 2006
54. Probing the superfluid properties of ultrathin copper-oxide superconducting films with the electric-field effect, Workshop on Mesoscopic Superconductivity and Magnetism, Chicago (USA), August 2006