

MaNEP – Year 1 (2001-2002): Publications

The most important publications are outlined by an asterisk in front of the first author.

1 Scientific articles in journals with peer review

M. ABRECHT, D. ARIOSIA, M. ONELLION, G. MARGARITONDO, D. PAVUNA
Structural phase transition in early growth of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ films on SrTiO_3 substrates
J. Appl. Phys. **91**, (2001) 1187.
Project # 12, Margaritondo

J. AFFOLTER, M. TESEI, H. PASTORIZA, CH. LEEMANN, P. MARTINOLI,
Observation of Ising-like critical fluctuations in frustrated Josephson junction arrays with modulated coupling energies
Physica C **369**, 313 (2002) 313-316
Project # 10, Martinoli

L. ANTOGNAZZA, M. DECROUX, S. REYMOND, E. DE CHAMBRIER, J.-M. TRISCONI, W. PAUL,
M. CHEN, Ø.FISCHER.
Simulation of the behavior of superconducting YBCO lines at high current densities.
To appear in the *Proceedings of the EUCAS-2001 Conference*.
Project # 2, Fischer

N. BARISIC, R. GAAL, I. KEZSMARKI, G. MIHALY, L. FORRÒ,
Pressure dependence of the thermoelectric power of single-walled carbon nanotubes
Submitted to *Phys. Rev. B, Rapid Communications*.
Project # 11, Forrò

F. BECCA, F. MILA
Peierls-like transition induced by frustration in a two-dimensional antiferromagnet
Preprint.
Project # 9, Rice

F. BIERI, F. KRUMEICH, H.J. MUHR, R. NESPER
The first Vanadium Oxide Nanotube containing an Aromatic Amine as Template
Preprint
Project # 7, Nesper

B. BINZ, D. BAERISWYL, B. DOUCOT
Wilson's renormalization group applied to 2D lattice electrons in the presence of van Hove singularities
Eur. Phys. J. B **25**, 69-87 (2002).
Project # 9, Rice

*F. BOUQUET, Y. WANG, R.A. FISHER., D.G. HINKS, J.D. JORGENSEN, A. JUNOD, N.E. PHILLIPS
Phenomenological two-gap model for the specific heat of MgB_2 .
Europhys. Lett. **56** (2001) 856-862.
Project # 4, Junod

S. BRODERICK, L. DEGIORGI, H.R. OTT, J.L. SARRAO, Z. FISK
Giant magneto-optical response of ferromagnetic EuB_6
Eur. Phys. J. B, submitted.
Project # 8, Ott

L.N. BULAEVSKII, CH. HELM, A.R. BISHOP, M.P. MALEY,
Optical properties of crystals with spatial dispersion – Josephson plasma resonance in layered superconductors.
Europhys. Lett. (2002) in press
Project # 6, Blatter

* M. CALAME, S.E. KORSHUNOV, CH. LEEMANN, P. MARTINOLI,
Collective Pinning of a Frozen Vortex Liquid in Ultrathin Superconducting Yba2Cu3O7 Films
Phys. Rev. Lett. **86**, (2001) 3630-3633
Project # 10, Martinoli

S. CANDIA, CH. LEEMANN, S. MOUAZIZ, P. MARTINOLI,
Investigation of vortex dynamics in Josephson junction arrays with magnetic flux noise measurements
Physica C **369**, 303 (2002) 309-312
Project # 10, Martinoli

N.M. CHTCHELKATCHEV, G. BLATTER, G. LESOVIK, TH. MARTIN,
Bell inequalities and entanglement in solid state devices
Submitted to *Phys. Rev. B*.
Project # 6, Blatter

L. DEGIORGI, S. BRODERICK, H.R. OTT, J.L. SARRAO, Z. FISK
The ferromagnetic phase transition in EuB₆: optical evidence for quasiparticle undressing
Physica B, in press.
Project # 8, Ott

L. DEGIORGI, S. BRODERICK, B. RUZICKA, H.R. OTT, J.L. SARRAO, Z. FISK
Scaling between magnetization and Drude weight in EuB₆
Phys. Rev. B (Rapid Commun.), in press.
Project # 8, Ott

* V. FAVRE-NICOLIN, S. BOS, J. E. LORENZO, J. L. HODEAU, J. F. BERAR, P. MONCEAU, R.
CURRAT, F. LEVY H. BERGER,
Structural Evidence for Ta-Tetramerization Displacements in the Charge-Density-Wave Compound (TaSe₄)₂I from X-Ray Anomalous Diffraction
Phys. Rev. Letters **87** (2001) 015502.
Project # 12, Margaritondo

Z. FISK, H.R. OTT, V. BARZYKIN, L.P. GOR'KOV
The emerging picture of ferromagnetism in the divalent hexaborides
Physica B, in press.
Project # 8, Ott

* S. GARIGLIO, C.H. AHN, D. MATTHEY, J.-M. TRISCONE,
Electrostatic tuning of the hole density in NdBa₂Cu₃O_{7.8} films and its effect on the Hall response.
Physical Review Letters **88** (2002) 67002.
Project # 5, Triscone

J.L. GAVILANO, S. MUSHKOLAJ, D. RAU, H.R. OTT, A. BIANCHI, D.P. YOUNG, Z. FISK,
¹¹B NMR in CaB₆
Physica B, in press.
Project # 8, Ott

J. L. GAVILANO, D. RAU, SH. MUSHKOLAJ, H. R. OTT, P. MILLET, F. MILA
DC-susceptibility and NMR response of a low-dimensional quantum magnet: Na₂V₃O₇
Physica B, in press.
Project # 9, Rice and Project # 8, Ott

B. GRÉVIN, I. MAGGO-APRILE, A. BENTZEN, O. KUFFER, I. JOUMARD, Ø. FISCHER
Scanning tunneling potentiometry search for mesoscopic phase separation in La_{0.7}Sr_{0.3}MnO₃
Submitted to *Applied Physics Letters*
Project # 2, Fischer

O. GRÖNING, L-O. NILSSON, P. GRÖNING, L. SCHLAPBACH,
Properties and characterization of chemical vapor deposition diamond field emitters

Solid-State Electronics **45** (2001) 929
Project # 15, Schlapbach

N. HASSELMANN, A.H. CASTRO NETO, C. MORAIS SMITH
Topological defects and the spin glass phase of cuprates
Europhys. Lett., **56**, (2001) 870-876.
Project # 9, Rice

J. HAYOZ, C. KOITZSCH, D. POPOVIC, M. BOVET, D. NAUMOVIC, P. AEBI,
Angle-scanned photoemission on YbH_x : relevance for switchable mirrors
Surf. Rev. Lett., accepted.
Project # 14, Aebi

CH. HELM, L.N. BULAEVSKII, E.M. CHUDNOVSKY, M.P. MALEY,
Reflectivity and microwave absorption in crystals with alternating intrinsic Josephson junctions
submitted to *Phys. Rev. Lett.*
Project # 6, Blatter

CH. HELM, L.N. BULAEVSKII,
Optical Properties of Layered Superconductors near the Josephson Plasma Resonance
submitted to *Phys. Rev. B*.
Project # 6, Blatter

Y. HIRAI, I. ZIVKOVIC, B.H. FRAZER, A. REGINELLI, L.PERFETTI, D. ARIOSI, G. MARGARITONDO,
M. PRESTER, D. DROBAC, D. T. JIANG, Y. HU, T. K. SHAM, I. FELNER, M. PEDERSON, M. ONELLION
Magnetic interactions and electronic states in superconducting and nonsuperconducting ruthenocuprates
Phys. Rev. B **65**, (2001) 054417.
Project # 12, Margaritondo

* B. W. HOOGENBOOM, K. KADOWAKI, B. REVAZ, M. LI, CH. RENNER, Ø. FISCHER :
Linear and field-independent relation between vortex core state energy and gap in Bi₂Sr₂CaCu₂O_{8+δ}
Phys. Rev. Lett. **87**, 267001 (2001)
Project # 2, Fischer

* L.B. IOFFE, M.V. FEIGEL'MAN, A. IOSELEVICH, D. IVANOV, M. TROYER, G. BLATTER
Topologically protected quantum bits from Josephson junction arrays
Nature **415**, (2002) 503.
Project # 6, Blatter

R. KHASANOV, A. SHENGELAYA, K. CONDER, E. MORENZONI, I.M. SAVIC AND H. KELLER
Oxygen-isotope effect on the in-plane penetration depth in underdoped Y_{1-x}Pr_xBa₂Cu₃O_{7-δ} as revealed by muon-spin rotation
submitted for publication
Project # 13, Keller

F. KRUMEICH, K.S. PILLAI, M. NIEDERBERGER, R. NESPER,
Neuartige Vanadiumoxid-Nanoröhren mit ungewöhnlicher Wandstruktur ,
Z.Kristallogr. Supp **18**, (2001), S.62
Project # 7, Nesper

F. LE MARREC, A. DEMUER, D. JACCARD, M.K. LEE, C.B. EOM, J.-M. TRISCONI
Magnetic behavior of epitaxial SrRuO₃ thin films under pressure up to 23 Gpa.
to appear in *Applied Physics Letters*
Project # 5, Triscone

* P. LEMMENS, K.-Y. CHOI, E. E. KAUL, CH. GEIBEL, K. BECKER, W. BRENIG, R. VALENTI, C.
GROS, M. JOHNSON, P. MILLET, F. MILA
Evidence for an unconventional magnetic instability in the spin-tetrahedra system Cu₂Te₂O₅Br₂
Phys. Rev. Lett. **87**, (2001) 227201.
Project # 9, Rice

G.B. LESOVIK, T. MARTIN, G. BLATTER,
Electronic Entanglement in the Vicinity of a Superconductor,
Eur. Phys. J. B **24** (2002) 287-290.
Project # 6, Blatter

D. MATTHEY, S. GARIGLIO, C.H. AHN, J.-M. TRISCONE
Electrostatic modulation of the superconducting transition in thin NdBa₂Cu₃O_{7-d} films: the role of classical fluctuations.
to appear in *Physica C*.
Project # 5, Triscone

F. MILA, D. DEAN
Dynamic spin-glass behavior in disorder-free, two component model of quantum frustrated magnets
Eur. Phys. J. B, in press.
Project # 9, Rice

* D. NAUMOVIC, P. AEBI, L. SCHLAPBACH, C. BEELI, K. KUNZE, T.A. LOGRASSO, D.W. DELANEY,
Formation of a stable Decagonal Quasicrystalline Al-Pd-Mn Surface Layer
Phys. Rev. Lett. **87** (2001) 195506-1 – 195506-4.
Project # 14, Aebi

R. NESPER, G. PATZKE,
Nanotubes – Functional particles of the 21st century?
Nachrichten aus der Chemie, **49**, (2001) 886
Project # 7, Nesper

N. NIBBIO, S. STAVREV, B. DUTOIT
Finite element method simulation of ac loss in HTS tapes with B-dependent E-J power law
IEEE Transactions on Applied Superconductivity, Vol. **11**, Nr. 1, (2001), 2631-2634.
Project # 3, Flükiger

N. NIBBIO, S. STAVREV
Effect of the geometry of HTS on AC loss by using finite element method simulation with B-dependent E-J power law
IEEE Transactions on Applied Superconductivity, Vol. **11**, Nr. 1, (2001), 2627-2630.
Project # 3, Flükiger

M. NIEDERBERGER, F. KRUMEICH, H.-J. MUHR, M. MÜLLER, R. NESPER,
Synthesis and Characterization of Novel Nanoscopic Molybdenum Oxide Fibres
J.Mater.Chem. **2001**, *11*, 1941-1945
Project # 7, Nesper

L. NILSSON, O. GRÖNING, O. KÜTTEL, P. GRÖNING, L. SCHLAPBACH
Microscopic characterization of electron field emission
J. Vac. Sci. Technol., **B20** (2002) 326
Project # 15, Schlapbach

B. NORMAND, A.P. KAMPF
Suppression of static stripe formation by next-neighbor hopping
Phys. Rev. B **65**, (2002), 020509 (4 pages).
Project # 9, Rice

B. NORMAND, F. MILA
Absence of effective spins 1/2 induced by nonmagnetic impurities in a class of low-dimensional magnets
Phys. Rev. B **65**, 104411 (7 pages), (2002).
Project # 9, Rice

* L. PERFETTI, H. BERGER, A. REGINELLI, L. DEGIORGI, H. HOECHST, J. VOIT, G. MARGARITONDO, M. GRIONI

Spectroscopic Indication of Polaronic Carriers in the Quasi-One-Dimensional Conductor (TaSe₄)₂I
Phys. Rev. Letters **87** (2001) 216404
Project # 12, Margaritondo

K. S. PILLAI, F. KRUMEICH, H.-J. MUHR, M. NIEDERBERGER, R. NESPER,
The first oxide nanotubes with alternating inter-layer distances
Solid State Ionics **141**, (2001), 185-190
Project # 7, Nesper

T. PLACKOWSKI, Y. WANG, A. JUNOD
Specific heat and magnetocaloric effect measurements using commercial heat-flow sensors.
Submitted to *Rev. Sci. Instrum.*
Project # 4, Junod

D. RUBIO TEMPRANO, J. MESOT, S. JANSSEN, K. CONDER, A. FURRER, A. SOKOLOV, V. TROUNOV, S.M. KAZAKOV, J. KARPINSKI, H. MUTKA, K.A. MÜLLER
Isotope effects on the pseudogap in high-temperature superconductors
Applied Physics A, to be published.
Project # 16, Furrer

D. RUBIO TEMPRANO, K. CONDER, A. FURRER, H. MUTKA, V. TROUNOV, K.A. MÜLLER,
Oxygen and copper isotope effects on the pseudogap in the high-temperature superconductor La_{1.81}Ho_{0.004}Sr_{0.15}CuO₄ studied by neutron crystal-field spectroscopy
Phys. Rev. Lett., submitted for publication.
Project # 16, Furrer

P. RUFFIEUX, O. GRÖNING, M. BIELMANN, L. SCHLAPBACH, C. SIMPSON, K. MÜLLEN, P. GRÖNING,
Supramolecular stacks of haxabenzocoronenes
Phys. Rev. Lett., submitted (2002)
Project # 15, Schlapbach

D.A. RYNDYK, J. KELLER, C. HELM,
Nonequilibrium effects due to charge fluctuations in intrinsic Josephson systems,
J. Phys.: Condens. Matter **14** (2002) 815.
Project # 6, Blatter

M. SALLUZZO, C. ARUTA, M.G. MAGLIONE, F. RICCI, F. NATALI, E. KOLLER, Ø. FISCHER, N.L. SAINI
Evidence of local structural transition during oxidation process of RBCO epitaxial films using time resolved RefleXafs measurements.
Submitted to *European Physical Journal B*, December 2001
Project # 2, Fischer

A. SEWER, H. BECK,
Fluctuating diamagnetism in underdoped high-temperature superconductors
Phys. Rev. B **64**, (2001) 014510, 8 pages
Project # 10, Martinoli

A. SEWER, H. BECK,
Thermodynamic properties of the attractive Hubbard model
Phys. Rev. B **64**, (2001) 224524 (15 pages)
Project # 10, Martinoli

S.G. SHARAPOV, H.BECK, V.M. LOKTEV
Finite-temperature time-dependent effective theory for the phase field in two-dimensional d-wave neutral superconductors
Phys. Rev. B **64**, (2001) 134519 (18 pages)
Project # 10, Martinoli

S.G. SHARAPOV, H. BECK

Effective action approach and Carlson-Goldman mode in d-wave superconductors

Phys. Rev. B, April 1 (2002), cond-mat/0109004

Project # 10, Martinoli

S.G.SHARAPOV, V.P.GUSYNIN, H.BECK

Low temperature superfluid stiffness of d-wave superconductor in a magnetic field

submitted to *cond-mat* and to *Phys. Rev B*

Project # 10, Martinoli

T. SHIBAUCHI, L. KRUSIN-ELBAUM, G. BLATTER, C.H. MIELKE,

Uncovering large quantum dissipative gapped regime in overdoped BiSrCaCuO,

submitted to *Nature*.

Project # 6, Blatter

* A.V. SOLOGUBENKO, J. JUN, S.M. KAZAKOV, J. KARPINSKI, H.R. OTT

Thermal and electrical transport in single crystalline MgB₂

Phys. Rev. Lett., submitted

Project # 8, Ott

A.V. SOLOGUBENKO, J. JUN, S.M. KAZAKOV, J. KARPINSKI, H.R. OTT

Anomalous thermal conductivity in the mixed state of single crystalline MgB₂

Phys. Rev. B, accepted.

Project # 8, Ott

A.V. SOLOGUBENKO, J. JUN, S.M. KAZAKOV, J. KARPINSKI, H.R. OTT

Temperature dependence and anisotropy of the bulk upper critical field H_{c2} of MgB₂

Phys. Rev.B, submitted.

Project # 8, Ott

S. STAVREV, F. GRILLI, B. DUTOIT, N. NIBBIO, E. VINOT, I. KLUTSCH, G. MEUNIER, P. TIXADOR,
Y. YANG, E. MARTINEZ

Comparison of Numerical Methods for Modeling of Superconductors

To be published in *IEEE Transactions on Magnetics*, March 2002.

Project # 3, Flükiger

S. STAVREV, B. DUTOIT

Geometry considerations for transport current applications of Bi-2223 conductors with anisotropic J_c(B) in external magnetic field

EUCAS 2001, 26-30 August, Copenhagen, submitted to Physica C.

Project # 3, Flükiger

S. STAVREV, F. GRILLI, B. DUTOIT, I. KLUTSCH, E. VINOT, P. TIXADOR, G. MEUNIER, P. SKOV-HANSEN, J. B. HANSEN

Numerical modelling of Bi-2223 multifilamentary tapes with position-dependent J_c

EUCAS 2001, 26-30 August, Copenhagen, submitted to Physica C.

Project # 3, Flükiger

S. STAVREV, Y. YANG, B. DUTOIT

Modeling and AC losses of BSCCO conductors with anisotropic and position-dependent J_c

ISS'2001, 25-27 September 2001, Kobe, Japan, submitted to *Physica C*.

Project # 3, Flükiger

* H.L. SUO, C. BENEDEUCE, M. DHALLÉ, N. MUSOLINO, J-Y. GENOUD, R. FLÜKIGER

Large transport critical currents in dense Fe- and Ni-clad MgB₂

Applied Physics Letters 79, 3116, 2001.

Project # 3, Flükiger

H.L. SUO, C. BENEDEUCE, X.D. SU, R. FLÜKIGER

Fabrication and transport critical currents of multifilamentary MgB₂/Fe wires and tapes

Submitted to *Supercond. Sci. Technol.*

Project # 3, Flükiger

P. VONLANTHEN, K. B. TANAKA, A. GOTO, W. G. CLARK, P. MILLET, J. Y. HENRY, J. GAVILANO, H.R. OTT, F. MILA, C. BERTHIER, M. HORVATIC, Y. TOKUNAGA, P. KUHN, A. P. REYES, W. G. MOULTON

High Magnetic Field NMR studies of LiVGe₂O₆, a quasi 1-D Spin S=1 System

submitted to *Phys. Rev. B*.

Project # 9, Rice Project # 8, Ott

Y. WANG, T. PLACKOWSKI, A. JUNOD

Specific heat in the superconducting and normal state (2-300 K, 0-16 T), and magnetic susceptibility of the 38-K superconductor MgB₂: evidence for a multicomponent gap.

Physica C **355** (2001) 179-193.

Project # 4, Junod

2 Scientific articles in journals without peer review

L. BENFATTO, A. TOSCHI, S. CAPRARA, C. CASTELLANI

Coherence length in superconductors from weak to strong coupling

cond-mat/0109486.

Project # 9, Rice

A. BRUNIGER, R. FLÜKIGER

Internationale Zusammenarbeit bei der Hochtemperatur supraleitung im Energiebereich

SEV/VSE Bulletin 02.011.01

Project # 3, Flükiger

N. HASSELMANN, A.H. CASTRO NETO AND C. MORAIS SMITH

Charge density wave formation in the low-temperature- tetragonal phase of cuprates

cond-mat/0112029.

Project # 9, Rice

H. KUSUNOSE, M. SIGRIST

Penetration Depth in Sr₂RuO₄ : Nonlocal Effects in a Multi Orbital Superconductor

ETH preprint

Project # 9, Rice

3 Scientific articles in anthologies

A. JUNOD, Y. WANG, F. BOUQUET, P. TOULEMONDE

Specific heat of the 38-K superconductor MgB₂ in the normal and superconducting state: bulk evidence for a double gap.

In: *Studies of High Temperature Superconductors*, Ed. A. Narlikar, Nova Publishers, Commack (N.Y.) **38** (2002) 179; *cond-mat/0106394*.

Project # 4, Junod

J. MESOT, D. RUBIO TEMPRANO, A. FURRER

Neutron Crystal-field spectroscopy in rare-earth based high-temperature superconductors

Trends in Applied Spectroscopy (to be published).

Project # 16, Furrer

4 Reports

E. GIANNINI

Phase formation and texture development in Ag-sheated (Bi,Pb)₂Sr₂Ca₂Cu₃O_{10+d} superconducting tapes

Thesis # 3277, University of Geneva, July 2001

Project # 3, Flükiger

P. GRÖNING,

Cold Plasma Processes in Surface Science and Technology

In *Handbook of Thin Films Material* edited by H.S. Nalwa, Vol. 1, Chapter 4, (2002) 219 – 257

Project # 15, Schlapbach

R. FLÜKIGER

Assessing the Impact of High Temperature Superconductivity on the Electric Power Sector

IEA Report, Nov. 2001

Project # 3, Flükiger

R. FLÜKIGER

High current Bi(2223) conductors with innovative wire geometry for power applications

5th Frame Program: GROWTH Projects: BIG POWA, Mid-Term Report, January 2002

Project # 3, Flükiger

C. LICHTENSTEIGER

Croissance et propriétés de structures artificielles à base de ferroélectriques

Mémoire de diplôme, Université de Genève, décembre 2001

Project # 5, Triscone

5 Miscellaneous

Ø. FISCHER, chair

Swiss Workshop on Materials with Novel Electronic Properties

Program of the workshop, Les Diablerets, Oct. 1-3, 2001

MaNEP management

O. KUFFER, M. KUGLER, I. MAGGIO-APRILE, A. A. MANUEL (Eds)

MaNEP Newsletter

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M. WÖRLE, U. FISCHBACH, R. NESPER, J. EVERS, R. STALDER, P. ULMER,

High Pressure Experiments with MgB₂C₂

8th European Conf. on Solid State Chem., Oslo, Norway 4.-7.7.2001

Project # 7, Nesper

M. WÖRLE, U. FISCHBACH, R. NESPER, J. EVERS, R. STALDER, P. ULMER,

High Pressure Experiments with MgB₂C₂

Swiss Soc. for Crystallography, Annual Meeting, Yverdon, Oktober 2001

Project # 7, Nesper

6 Articles and posters appeared in public medias

ABB Research Labs, Baden

Brain Power heisst: Mit vereintem Geist den Blitz in den Griff kriegen.

Poster, 2002

Project # 2, Fischer

D. CHRISTIE

“Genève se lance dans la course aux matériaux électroniques du futur”

Campus 49 (2000) 9-10

Project # 2, Fischer

T. DELFS

Neue Materialien braucht der Industriestandort

Basler Zeitung

MaNEP management

C. THALMANN

Vorschlag für robuste Speichereinheit eines Quantumcomputers: Rechnen mit Schrödinger-Katzen

Tagesberichte ETH Life, Feb. 18, 2002

Project # 6, Blatter

A. VOS

“Pôles de recherche nationaux : Pousser l'électronique au-delà de ses limites - Un pôle de recherche national, basé à Genève, se penche sur les matériaux aux propriétés électroniques exceptionnelles”

Le Temps, Genève, 5 juin 2001

MaNEP management

Appendix – Public relations

Articles and posters in public media

Four articles were published in Swiss newspapers and magazines : Campus, Basler Zeitung, ETH Life, and Le Temps. The references to these articles, as well as a poster largely used by ABB, figure in the list of publications (see above).

MaNEP Newsletters

The first issue of the MaNEP Newsletter have been published in Fall 2001. The second issue, Spring 2002, is on print. We refer to section 3, “Knowledge and Technology Transfer” for more details on the newsletters.

Opening, open days

The opening celebration of MaNEP is under preparation. A number of political, academic and scientific personalities from the Swiss Confederation and from the Cantons hosting institutions participating to the NCCR have been invited. An day open to the public is planned in conjunction with the opening. Activities aimed to inform the public with the scientific and technological concerns of MaNEP will be presented. Among others : a levitation train, a macroscopic scanning tunneling microscope, a superconducting current limiter, etc.

Radio and TV programmes:

An interview of J.-M. Triscone, MaNEP’s deputy director has been broadcasted by the “Télévision Suisse Romande” in the “Téléjournal” of 19.30” on February 24, 2002.