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UNIVERSITATEA BABEŞ-BOLYAI CLUJ-NAPOCA

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RECTORATUL

Universitatea Babeş-Bolyai Competiția Excelenței 2010

Dosar individual

Notă: Toate datele se referă la perioada 2005-2009

Nume, prenume, grad did.	LIBAL, ANDRAS, LECTOR
Facultatea, Catedra	Matematica si Informatica, Sisteme Informatice
Domeniul științific	Condensed Matter Physics, Computer Simulations
Adresa paginii web personale	www.cs.ubbcluj.ro/~alibal
Adresa e-mail	alibal@cs.ubbcluj.ro

Criteriaul I – Output

1. Articole științifice publicate în reviste indexate ISI (cu menționare factorului de impact în cazul celor cotate)

1. *Optical response of a ferromagnetic-diluted magnetic semiconductor hybrid structure*

P.Redlinksi, T.G.Rappoport, A.Libál, J.K.Furdyna, B.Jankó, T.Wojtowicz,

Appl. Phys. Lett **86**, 113103 (2005)

Impact factor: 3.726

2. *Zero- and one-dimensional magnetic traps*

for quasiparticles in diluted magnetic semiconductors

P.Redlinksi, T.Wojtowicz, T.G.Rappoport, A.Libál, J.K.Furdyna, B.Jankó,

Phys. Rev. B **72**, 085209 (2005)

Impact factor: 3.322

3. *Control of magnetic vortex chirality in square ring micromagnets*

A.Libál, M.Grimsditch, V.Methlusko, P. Vavassori, B.Jankó,

J. Appl. Phys. **98**, 083904 (2005)

Impact factor: 2.201

4. *Phase transition in an optimal clusterization model*

Z.Néda, R.Florian, M.Ravasz, A.Libál, G.Györgyi

Physica A, **362**, 357 (2006)

Impact factor: 1.434

5. *Dynamics, Rectification, and Fractionation for Colloids on Flashing Substrates*

A.Libál, C.Reichhardt, B.Jankó, C.J.Olson Reichhardt

Phys. Rev. Lett **96**, 188301 (2006)

Impact factor: 7.180

6. *Vortex configurations and dynamics in elliptical pinning sites for high matching fields*

C.J.Olson Reichhardt, A.Libál, C.Reichhardt

Phys. Rev. B **73**, 184519 (2006)

Impact factor: 3.322

7. Realizing Colloidal Artificial Ice on Arrays of Optical Traps

A.Libál, C.Reichhardt, C.J.Olson Reichhardt

Phys. Rev. Lett. **97**, 228302 (2006)

Impact factor: 7.180

8. Point Defect Dynamics in Two-Dimensional Colloidal Crystals

A.Libál, C.Reichhardt, C.J.Olson Reichhardt

Phys. Rev. E **75**, 011403 (2007)

Impact factor: 2.508

9. Enhancing Mixing and Diffusion with plastic flow

A.Libál, C.Reichhardt, C.J.Olson Reichhardt

Phys. Rev. E **78**, 031401 (2008)

Impact factor: 2.508

10. Creating Artificial Ice States Using Vortices in Nanostructured Superconductors

A. Libál, C. J. Olson Reichhardt, and C. Reichhardt

Phys. Rev. Lett. **102**, 237004 (2009)

Impact factor: 7.180

11. Guided nucleation of superconductivity on a graded magnetic substrate

Milosevic, MV; Gillijns, W; Silhanek, AV, Libal A, Peeters FM, Moshchalkov VV

Appl. Phys. Lett **96**, 032503 (2010)

Impact factor: 3.726

2. Articole științifice publicate în ISI proceedings

1. Ferromagnetic/DMS hybrid structures:

one- and zero-dimensional magnetic traps for quasiparticles

P.Redlinksi, T.Wojtowicz, T.G. Rappoport, A.Libál, J.K.Furdyna, B.Jankó,

AIP Conf. Proc. Vol. **772**, 1291 (part B), (2005)

3. Articole științifice indexate în BDI (din lista CNCSIS)

4. Alte articole științifice/capitole publicate în reviste/volume cu referenți (peer-reviewed)

5. Cărți științifice publicate în edituri internaționale

6. Cărți științifice publicate în edituri naționale acreditate

"Elemi Kvantummechanika"

Néda Zoltán, Libál András, Kovács Katalin

(Book on Quantum Mechanics, undergraduate level, in Hungarian)

Babes-Bolyai University, Romania

7. Editor de volume publicate în edituri naționale și internaționale

8. Brevete internaționale

9. Brevete naționale

10. Impact tehnologic al brevetelor: resurse financiare extrabugetare atrase în relație cu economia

11. Realizări artistice naționale și internaționale (Domeniul Arte)
(Expoziții, spectacole, concerte, publicații, filme, înregistrări)

Criteriul II – Prestigiu profesional

1. Citări ale articolelor ISI listate la Criteriul I

1. *Optical response of a ferromagnetic-diluted magnetic semiconductor hybrid structure*

P.Redlinksi, T.G.Rappoport, A.Libál, J.K.Furdyna, B.Jankó, T.Wojtowicz,

Appl. Phys. Lett **86**, 113103 (2005)

Impact factor: 3.726

Cited 6 times

1. Title: The effect of impurities on spin-polarized Zeeman bound states in dilute magnetic semiconductor-superconductor hybrids

Author(s): Lin SH, Rappoport TG, Berciu M, et al.Source: JOURNAL OF APPLIED PHYSICS

Volume: 107 Issue: 3 Article Number: 034307 Published: FEB 2010

Times Cited: 0

2. Title: Growth of novel-diluted magnetic semiconducting material $\text{Ge}_{1-x}\text{Mn}_x$ and X-ray characterization by the maximum entropy method (MEM) and pair distribution function (PDF)

Author(s): Ali KSS, Saravanan R, Israel SSource: JOURNAL OF CRYSTAL GROWTH

Volume: 311 Issue: 4 Pages: 1110-1116 Published: FEB 1 2009

Times Cited: 0

3. Title: Magnetic field effect on transitions between direct and indirect excitons in diluted magnetic semiconductor double quantum wells

Author(s): Lev SB, Sugakov VI, Vertsimakha GVSource: PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES Volume: 40 Issue: 9 Pages: 2899-2903 Published:

AUG 2008

Times Cited: 0

4. Title: Local spin manipulation in ferromagnet-semiconductor hybrids

Author(s): Halm S, Bacher G, Schuster E, et al.Source: APPLIED PHYSICS LETTERS

Volume: 90 Issue: 5 Article Number: 051916 Published: JAN 29 2007

Times Cited: 9

5. Title: Effect of the Abrikosov vortex phase on spin and charge states in magnetic semiconductor-superconductor hybrids

Author(s): Rappoport TG, Berciu M, Janko BSource: PHYSICAL REVIEW B Volume: 74

Issue: 9 Article Number: 094502 Published: SEP 2006

Times Cited: 1

6. Title: Zero- and one-dimensional magnetic traps for quasiparticles in diluted magnetic semiconductors

Author(s): Redlinski P, Wojtowicz T, Rappoport TG, et al.Source: PHYSICAL REVIEW B

Volume: 72 Issue: 8 Article Number: 085209 Published: AUG 2005

Times Cited: 7

2. *Zero- and one-dimensional magnetic traps*

for quasiparticles in diluted magnetic semiconductors

P.Redlinksi, T.Wojtowicz, T.G.Rappoport, A.Libál, J.K.Furdyna, B.Jankó,

Phys. Rev. B **72**, 085209 (2005)

Impact factor: 3.322

Cited 7 times

1. Title: The effect of impurities on spin-polarized Zeeman bound states in dilute magnetic semiconductor-superconductor hybrids
Author(s): Lin SH, Rappoport TG, Berciu M, et al. Source: JOURNAL OF APPLIED PHYSICS
Volume: 107 Issue: 3 Article Number: 034307 Published: FEB 2010
Times Cited: 0
2. Title: Coherent Spin Dynamics in Nanostructured Semiconductor-Ferromagnet Hybrids
Author(s): Hohage P, Nannen J, Halm S, et al.
Conference Information: 2008 Workshop on Solid State Physics, FEB 24-29, 2008 Berlin, GERMANY Source: ADVANCES IN SOLID STATE PHYSICS, VOL 48 Book Series: ADVANCES IN SOLID STATE PHYSICS Volume: 48 Pages: 183-195 Published: 2009
Times Cited: 0
3. Title: Local control of spin polarization in a semiconductor by microscale current loops
Author(s): Chen YS, Halm S, Neshataeva E, et al. Source: APPLIED PHYSICS LETTERS
Volume: 93 Issue: 14 Article Number: 141902 Published: OCT 6 2008
Times Cited: 1
4. Title: Manipulation of spin states in a semiconductor by microscale magnets
Author(s): Hahn S, Hohage PE, Nannen J, et al. Source: JOURNAL OF PHYSICS D-APPLIED PHYSICS Volume: 41 Issue: 16 Article Number: 164007 Published: AUG 21 2008
Times Cited: 0
5. Title: Precession of localized spins in an inhomogeneous magnetic fringe field
Author(s): Halm S, Hohage PE, Nannen J, et al. Source: PHYSICAL REVIEW B Volume: 77 Issue: 12 Article Number: 121303 Published: MAR 2008
Times Cited: 6
6. Title: Effect of the Abrikosov vortex phase on spin and charge states in magnetic semiconductor-superconductor hybrids
Author(s): Rappoport TG, Berciu M, Janko B Source: PHYSICAL REVIEW B Volume: 74 Issue: 9 Article Number: 094502 Published: SEP 2006
Times Cited: 1
7. Title: Stray-field-induced modification of coherent spin dynamics
Author(s): Meier L, Salis G, Ellenberger C, et al. Source: APPLIED PHYSICS LETTERS
Volume: 88 Issue: 17 Article Number: 172501 Published: APR 24 2006
Times Cited: 18

3. Control of magnetic vortex chirality in square ring micromagnets

A. Libál, M. Grimsditch, V. Methlusko, P. Vavassori, B. Jankó,
J. Appl. Phys. **98**, 083904 (2005)
Impact factor: 2.201

Cited 12 times

1. Title: Magnetostatic dipolar domain-wall pinning in chains of permalloy triangular rings
Author(s): Vavassori P, Bisero D, Bonanni V, et al. Source: PHYSICAL REVIEW B Volume: 78 Issue: 17 Article Number: 174403 Published: NOV 2008
Times Cited: 5
2. Title: Head-to-head domain walls in magnetic nanostructures
Author(s): Klaui M Source: JOURNAL OF PHYSICS-CONDENSED MATTER Volume: 20 Issue: 31 Article Number: 313001 Published: AUG 6 2008
Times Cited: 21
3. Title: Magnetization reversal in nanowires with a spiral shape
Author(s): Westphalen A, Remhof A, Zabel H Source: JOURNAL OF APPLIED PHYSICS
Volume: 104 Issue: 1 Article Number: 013906 Published: JUL 1 2008
Times Cited: 0

4. Title: Probing the magnetic states in mesoscopic rings by synchronous transport measurements in ring-wire hybrid configuration
Author(s): Jain S, Adeyeye AO
Source: APPLIED PHYSICS LETTERS Volume: 92 Issue: 20
Article Number: 202506 Published: MAY 19 2008
Times Cited: 6
5. Title: Extended longitudinal vector and Bragg magneto-optic Kerr effect for the determination of the chirality distribution in magnetic vortices
Author(s): Lee MS, Westphalen A, Remhof A, et al.
Source: JOURNAL OF APPLIED PHYSICS
Volume: 103 Issue: 9 Article Number: 093913 Published: MAY 1 2008
Times Cited: 0
6. Title: Formation and control of magnetic vortex chirality in patterned micromagnet arrays
Author(s): Konoto M, Yamada T, Koike K, et al.
Source: JOURNAL OF APPLIED PHYSICS
Volume: 103 Issue: 2 Article Number: 023904 Published: JAN 15 2008
Times Cited: 7
7. Title: Domain wall displacement by current pulses injection in submicrometer Permalloy square ring structures
Author(s): Vavassori P, Metlushko V, Llic B
Source: APPLIED PHYSICS LETTERS Volume: 91 Issue: 9 Article Number: 093114 Published: AUG 27 2007
Times Cited: 5
8. Title: Magnetization reversal of thin Fe triangular rings
Author(s): Westphalen A, Schumann A, Remhof A, et al.
Conference Information: International Symposium on Physics in Low Dimensions - Structure Meets Magnetism, APR 05-07, 2006 Ruhr Uhniv Bochum, Bochum, GERMANY
Source: SUPERLATTICES AND MICROSTRUCTURES Volume: 41 Issue: 2-3 Pages: 98-103
Published: FEB-MAR 2007
Times Cited: 3
9. Title: Chirality and stability of vortex state in permalloy triangular ring micromagnets
Author(s): Vavassori P, Donzelli O, Grimsditch M, et al.
Source: JOURNAL OF APPLIED PHYSICS
Volume: 101 Issue: 2 Article Number: 023902 Published: JAN 15 2007
Times Cited: 11
10. Title: Flux-closure magnetic states in triangular cobalt ring elements
Author(s): Imre A, Varga E, Ji LL, et al.
Source: IEEE TRANSACTIONS ON MAGNETICS
Volume: 42 Issue: 11 Pages: 3641-3644 Published: NOV 2006
Times Cited: 6
11. Title: Magnetization reversal of equilateral Fe triangles
Author(s): Westphalen A, Schumann A, Remhof A, et al.
Source: PHYSICAL REVIEW B
Volume: 74 Issue: 10 Article Number: 104417 Published: SEP 2006
Times Cited: 10
12. Title: Magnetization reversal mechanisms in diamond-shaped Co nanomagnets
Author(s): Goolaup S, Adeyeye AO, Singh N
Source: PHYSICAL REVIEW B Volume: 73 Issue: 10 Article Number: 104444 Published: MAR 2006
Times Cited: 6

4. *Phase transition in an optimal clusterization model*

Z.Néda, R.Florian, M.Ravasz, A.Libál, G.Györgyi

Physica A, **362**, 357 (2006)

Impact factor: 1.434

Cited 4 times

1. Title: Correlation clustering on networks

Author(s): Neda Z, Sumi R, Ercsey-Ravasz M, et al. Source: JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL Volume: 42 Issue: 34 Article Number: 345003
Published: AUG 28 2009

Times Cited: 0

2. Title: MOLECULAR DYNAMICS APPROACH TO CORRELATION CLUSTERING
Author(s): Sumi R, Neda Z Source: INTERNATIONAL JOURNAL OF MODERN PHYSICS C
Volume: 19 Issue: 9 Pages: 1349-1358 Published: SEP 2008

Times Cited: 1

3. Title: Evolutionary coalition formation in full connected and scale free networks
Author(s): Diosan L, Dumitrescu D Source: INTERNATIONAL JOURNAL OF COMPUTERS
COMMUNICATIONS & CONTROL Volume: 3 Pages: 259-264 Supplement: Suppl. S
Published: 2008

Times Cited: 0

4. Title: Three-body interactions in sociophysics and their role in coalition forming
Author(s): Naumis GG, Samaniego-Steta F, del Castillo-Mussot M, et al. Source: PHYSICA A-
STATISTICAL MECHANICS AND ITS APPLICATIONS Volume: 379 Issue: 1 Pages:
226-234 Published: JUN 1 2007

Times Cited: 2

5. *Dynamics, Rectification, and Fractionation for Colloids on Flashing Substrates*

A. Libál, C. Reichhardt, B. Jankó, C.J. Olson Reichhardt

Phys. Rev. Lett **96**, 188301 (2006)

Impact factor: 7.180

Cited 13 times

1. Title: Enhanced particle transport in an oscillating sinusoidal optical potential
Author(s): Mu W, Liu Z, Luan L, et al. Source: NEW JOURNAL OF PHYSICS Volume: 11
Article Number: 103017 Published: OCT 5 2009

Times Cited: 0

2. Title: Pattern switching and polarizability for colloids in optical-trap arrays
Author(s): Reichhardt C, Reichhardt C Source: PHYSICAL REVIEW E Volume: 80 Issue: 2
Article Number: 022401 Part: Part 1 Published: AUG 2009

Times Cited: 0

3. Title: Interaction-controlled Brownian motion in a tilted periodic potential
Author(s): Evstigneev M, von Gehlen S, Reimann P Source: PHYSICAL REVIEW E Volume:
79 Issue: 1 Article Number: 011116 Part: Part 1 Published: JAN 2009

Times Cited: 2

4. Title: Light at work: The use of optical forces for particle manipulation, sorting, and
analysis

Author(s): Jonas A, Zemanek P Source: ELECTROPHORESIS Volume: 29 Issue: 24 Special
Issue: Sp. Iss. SI Pages: 4813-4851 Published: DEC 2008

Times Cited: 8

5. Title: Optical tweezers for single cells
Author(s): Zhang H, Liu K Source: JOURNAL OF THE ROYAL SOCIETY INTERFACE
Volume: 5 Issue: 24 Pages: 671-690 Published: JUL 6 2008

Times Cited: 9

6. Title: Continuous sorting of Brownian particles using coupled photophoresis and
asymmetric potential cycling

Author(s): Ng TW, Neild A, Heeraman P Source: OPTICS LETTERS Volume: 33 Issue: 6
Pages: 584-586 Published: MAR 15 2008

Times Cited: 2

7. Title: Dynamics of a dimer in a symmetric potential: Ratchet effect generated by an internal degree of freedom
Author(s): von Gehlen S, Evstigneev M, Reimann P Source: PHYSICAL REVIEW E Volume: 77 Issue: 3 Article Number: 031136 Part: Part 1 Published: MAR 2008
Times Cited: 10
8. Title: Recent advances in microparticle continuous separation
Author(s): Kersaudy-Kerhoas M, Dhariwal R, Desmulliez MPY Source: IET NANOBIO TECHNOLOGY Volume: 2 Issue: 1 Pages: 1-13 Published: MAR 2008
Times Cited: 7
9. Title: Voltage rectification effects in mesoscopic superconducting triangles: Experiment and modeling
Author(s): Schildermans N, Kolton AB, Salenbien R, et al. Source: PHYSICAL REVIEW B Volume: 76 Issue: 22 Article Number: 224501 Published: DEC 2007
Times Cited: 2
10. Title: Colloidal sorting in dynamic optical lattices
Author(s): Smith RL, Spalding GC, Dholakia K, et al. Source: JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS Volume: 9 Issue: 8 Special Issue: Sp. Iss. SI Pages: S134-S138 Published: AUG 2007
Times Cited: 12
11. Title: Cellular and colloidal separation using optical forces
Author(s): Dholakia K, MacDonald MP, Zemanek P, et al. Source: LASER MANIPULATION OF CELLS AND TISSUES Book Series: METHODS IN CELL BIOLOGY Volume: 82 Pages: 467-495 Published: 2007
Times Cited: 9
12. Title: Reversible vortex ratchet effects and ordering in superconductors with simple asymmetric potential arrays
Author(s): Lu QM, Reichhardt CJO, Reichhardt C Source: PHYSICAL REVIEW B Volume: 75 Issue: 5 Article Number: 054502 Published: FEB 2007
Times Cited: 19
13. Title: Transverse rectification of disorder-induced fluctuations in a driven system
Author(s): Kolton ABS Source: PHYSICAL REVIEW B Volume: 75 Issue: 2 Article Number: 020201 Published: JAN 2007
Times Cited: 5

6. *Vortex configurations and dynamics in elliptical pinning sites for high matching fields*
C.J.Olson Reichhardt, A.Libál, C.Reichhardt
Phys. Rev. B **73**, 184519 (2006)
Impact factor: 3.322

Cited 10 times

- Title: Switching and jamming transistor effect for vortex matter in honeycomb pinning arrays with ac drives
Author(s): Reichhardt C, Reichhardt CJO Source: PHYSICAL REVIEW B Volume: 81 Issue: 2 Article Number: 024510 Published: JAN 2010
Times Cited: 0
2. Title: Transverse instabilities of multiple vortex chains in magnetically coupled NbSe₂/permalloy superconductor/ferromagnet bilayers
Author(s): Karapetrov G, Miloscevic MV, Iavarone M, et al. Source: PHYSICAL REVIEW B Volume: 80 Issue: 18 Article Number: 180506 Published: NOV 2009
Times Cited: 1
 3. Title: Transport anisotropy as a probe of the interstitial vortex state in superconductors with artificial pinning arrays

Author(s): Reichhardt C, Reichhardt CJO Source: PHYSICAL REVIEW B Volume: 79 Issue: 13 Article Number: 134501 Published: APR 2009

Times Cited: 3

4. Title: Moving vortex phases, dynamical symmetry breaking, and jamming for vortices in honeycomb pinning arrays

Author(s): Reichhardt C, Reichhardt CJO Source: PHYSICAL REVIEW B Volume: 78 Issue: 22 Article Number: 224511 Published: DEC 2008

Times Cited: 3

5. Title: Viscous decoupling transitions for individually dragged particles in systems with quenched disorder

Author(s): Reichhardt CJO, Reichhardt CS Source: PHYSICAL REVIEW E Volume: 78 Issue: 1 Article Number: 011402 Part: Part 1 Published: JUL 2008

Times Cited: 0

6. Title: Spontaneous transverse response and amplified switching in superconductors with honeycomb pinning arrays

Author(s): Reichhardt C, Reichhardt CJO Source: PHYSICAL REVIEW LETTERS Volume: 100 Issue: 16 Article Number: 167002 Published: APR 25 2008

Times Cited: 4

7. Title: Devil's staircase and disordering transitions in sliding vortices and Wigner crystals on random substrates with transverse driving

Author(s): Reichhardt C, Reichhardt CJO Source: PHYSICAL REVIEW B Volume: 76 Issue: 21 Article Number: 214305 Published: DEC 2007

Times Cited: 3

8. Title: Commensurability effects at nonmatching fields for vortices in diluted periodic pinning arrays

Author(s): Reichhardt C, Reichhardt CJO Source: PHYSICAL REVIEW B Volume: 76 Issue: 9 Article Number: 094512 Published: SEP 2007

Times Cited: 5

9. Title: Vortex molecular crystal and vortex plastic crystal states in honeycomb and kagome pinning arrays

Author(s): Reichhardt C, Reichhardt CJO Source: PHYSICAL REVIEW B Volume: 76 Issue: 6 Article Number: 064523 Published: AUG 2007

Times Cited: 7

10. Title: Enhancement of mobilities in a pinned multidomain crystal

Author(s): Coupier G, Saint Jean M, Guthmann CS Source: PHYSICAL REVIEW B Volume: 75 Issue: 22 Article Number: 224103 Published: JUN 2007

Times Cited: 9

7. Realizing Colloidal Artificial Ice on Arrays of Optical Traps

A.Libál, C.Reichhardt, C.J.Olson Reichhardt

Phys. Rev. Lett. **97**, 228302 (2006)

Impact factor: 7.180

Cited 10 times

1. Title: Kink-antikink vortex transfer in periodic-plus-random pinning potential: Theoretical analysis and numerical experiments

Author(s): Pogosov WV, Zhao HJ, Misko VR, et al. Source: PHYSICAL REVIEW B Volume: 81 Issue: 2 Article Number: 024513 Published: JAN 2010

Times Cited: 0

2. Title: Dynamics of colloids in a narrow channel driven by a nonuniform force

Author(s): Tkachenko DV, Misko VR, Peeters FMS Source: PHYSICAL REVIEW E Volume: 80 Issue: 5 Article Number: 051401 Part: Part 1 Published: NOV 2009

Times Cited: 0

3. Title: Creating Artificial Ice States Using Vortices in Nanostructured Superconductors
Author(s): Libal A, Reichhardt CJO, Reichhardt C
Source: PHYSICAL REVIEW LETTERS
Volume: 102 Issue: 23 Article Number: 237004 Published: JUN 12 2009

Times Cited: 0

4. Title: Depinning Dynamics of Two-Dimensional Charged Colloids on a Random Laser-Optical Substrate

Author(s): Cao YG, Wang HL, Yang G, et al.
Source: COMMUNICATIONS IN THEORETICAL PHYSICS
Volume: 51 Issue: 5 Pages: 938-940 Published: MAY 2009

Times Cited: 0

5. Title: Stripes, Zigzags, and Slow Dynamics in Buckled Hard Spheres

Author(s): Shokef Y, Lubensky T
Source: PHYSICAL REVIEW LETTERS
Volume: 102 Issue: 4 Article Number: 048303 Published: JAN 30 2009

Times Cited: 5

6. Title: CONDENSED-MATTER PHYSICS The eternal triangle

Author(s): Harris M
Source: NATURE
Volume: 456 Issue: 7224 Pages: 886-887 Published: DEC 18 2008

Times Cited: 1

7. Title: Geometric frustration in buckled colloidal monolayers

Author(s): Han YL, Shokef Y, Alsayed AM, et al.
Source: NATURE
Volume: 456 Issue: 7224 Pages: 898-903 Published: DEC 18 2008

Times Cited: 14

8. Title: Dynamics of magnetized colloids on a disordered substrate

Author(s): Cao YG, Li QX
Source: PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS
Volume: 387 Issue: 19-20 Pages: 4755-4759 Published: AUG 2008

Times Cited: 1

9. Title: Switchable collective pinning of flux quanta using magnetic vortex arrays: Experiments on square arrays of Co dots on thin superconducting films

Author(s): Villegas JE, Smith KD, Huang L, et al.
Source: PHYSICAL REVIEW B
Volume: 77 Issue: 13 Article Number: 134510 Published: APR 2008

Times Cited: 7

10. Title: Direct observation of the ice rule in an artificial kagome spin ice

Author(s): Qi Y, Brintlinger T, Cumings J
Source: PHYSICAL REVIEW B
Volume: 77 Issue: 9 Article Number: 094418 Published: MAR 2008

Times Cited: 11

8. *Point Defect Dynamics in Two-Dimensional Colloidal Crystals*

A.Libál, C.Reichhardt, C.J.Olson Reichhardt

Phys. Rev. E **75**, 011403 (2007)

Impact factor: 2.508

Cited 12 times

1. Title: Structure of Multi-Component Colloidal Lattices at Oil-Water Interfaces

Author(s): Ma H, Dai LL
Source: LANGMUIR
Volume: 25 Issue: 19 Pages: 11210-11215
Published: OCT 6 2009

Times Cited: 0

2. Title: Defect interactions in two-dimensional colloidal crystals: vacancy and interstitial strings

Author(s): Lechner W, Dellago C
Source: SOFT MATTER
Volume: 5 Issue: 14 Pages: 2752-2758
Published: 2009

Times Cited: 0

3. Title: Two-dimensional matter: order, curvature and defects

Author(s): Bowick MJ, Giomi L Source: ADVANCES IN PHYSICS Volume: 58 Issue: 5
Pages: 449-563 Published: 2009

Times Cited: 1

4. Title: Ultrafast Quenching of Binary Colloidal Suspensions in an External Magnetic Field

Author(s): Assoud L, Ebert F, Keim P, et al. Source: PHYSICAL REVIEW LETTERS Volume:
102 Issue: 23 Article Number: 238301 Published: JUN 12 2009

Times Cited: 3

5. Title: Colloidal model system for island formation

Author(s): Deb D, von Grunberg H Source: JOURNAL OF PHYSICS-CONDENSED
MATTER Volume: 21 Issue: 24 Article Number: 245102 Published: JUN 17 2009

Times Cited: 1

6. Title: Binary crystals in two-dimensional two-component Yukawa mixtures

Author(s): Assoud L, Messina R, Lowen H Source: JOURNAL OF CHEMICAL PHYSICS
Volume: 129 Issue: 16 Article Number: 164511 Published: OCT 28 2008

Times Cited: 4

7. Title: Displacement fields of point defects in two-dimensional colloidal crystals

Author(s): Lechner W, Scholl-Paschinger E, Dellago C

Conference Information: 2nd Conference on Colloidal Dispersions in External Fields, MAR 31-
APR 02, 2008 Bonn Bad Godesberg, GERMANY Source: JOURNAL OF PHYSICS-
CONDENSED MATTER Volume: 20 Issue: 40 Article Number: 404202 Published: OCT 8
2008

Times Cited: 2

8. Title: Image force on a charged projectile moving over a two-dimensional strongly
coupled Yukawa system

Author(s): Hou LJ, Miskovic Z Source: PHYSICAL REVIEW E Volume: 77 Issue: 4 Article
Number: 046401 Part: Part 2 Published: APR 2008

Times Cited: 1

9. Title: On the interaction of vacancies in a two-dimensional rare-gas crystal

Author(s): Modesto L, Junior DLS, Rabelo JNT, et al. Source: SOLID STATE
COMMUNICATIONS Volume: 145 Issue: 7-8 Pages: 355-358 Published: FEB 2008

Times Cited: 0

10. Title: Interstitial fractionalization and spherical crystallography

Author(s): Bowick MJ, Nelson DR, Shin H Source: PHYSICAL CHEMISTRY CHEMICAL
PHYSICS Volume: 9 Issue: 48 Pages: 6304-6312 Published: 2007

Times Cited: 3

11. Title: Formation energy and interaction of point defects in two-dimensional colloidal
crystals

Author(s): DaSilva LC, Candido L, Costa LDF, et al. Source: PHYSICAL REVIEW B Volume:
76 Issue: 3 Article Number: 035441 Published: JUL 2007

Times Cited: 3

12. Title: Dynamics and instabilities of defects in two-dimensional crystals on curved
backgrounds

Author(s): Bowick M, Shin H, Travesset A Source: PHYSICAL REVIEW E Volume: 75 Issue:
2 Article Number: 021404 Part: Part 1 Published: FEB 2007

Times Cited: 4

9. *Enhancing Mixing and Diffusion with plastic flow*

A.Libál, C.Reichhardt, C.J.Olson Reichhardt

Phys. Rev. E **78**, 031401 (2008)

Impact factor: 2.508

Cited 1 times

Title: Dynamics of colloids in a narrow channel driven by a nonuniform force
Author(s): Tkachenko DV, Misko VR, Peeters FM
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10. Creating Artificial Ice States Using Vortices in Nanostructured Superconductors

A. Libál, C. J. Olson Reichhardt, and C. Reichhardt

Phys. Rev. Lett. **102**, 237004 (2009)

Impact factor: 7.180

Not cited yet

11. Guided nucleation of superconductivity on a graded magnetic substrate

Milosevic, MV; Gillijns, W; Silhanek, AV, Libal A , Peeters FM , Moshchalkov VV

Appl. Phys. Lett **96**, 032503 (2010)

Impact factor: 3.726

Not cited yet

2. Alte citări ale lucrărilor listate mai sus

3. Citări în perioada 2005-2009 ale articolelor anterioare anului 2005

Nu am articole anterioare 2005

4. Distincții, premii și alte recunoașteri naționale și internaționale

Award for outstanding presentation in Physics, Student Symposium, Los Alamos, 2006

Award for best thesis in Physics, University of Notre Dame, Notre Dame, 2008

5. Studenți naționali atrași (activități de coordonare științifică și didactică)

- Îndrumare lucrari de licență (număr lucrări susținute)
- Îndrumare lucrări de disertație (număr lucrări susținute)
- Doctoranzi (lista nominală a doctoranzilor înmatriculați resp. lista nominală a tezelor susținute)
- Post-doctoranzi (lista nominală)

6. Studenți internaționali atrași (activități de coordonare științifică și didactică)

- Îndrumare lucrari de licență (număr lucrări susținute)
- Îndrumare lucrări de disertație (număr lucrări susținute)
- Doctoranzi (lista nominală a doctoranzilor înmatriculați resp. lista nominală a tezelor susținute)
- Post-doctoranzi (lista nominală)

7. Membru in comitetul de redacție la reviste ISI

8. Membru in comitetul de redacție la reviste BDI

9. Participări la programe/granturi de cercetare finanțate din sursă internațională (se menționează și valoarea)

Kleinproject, Universiteit Antwerpen, Belgium, PI,
valoarea: 7500 euro

10. Participări la programe/granturi finanțate din sursă națională (se menționează și valoarea)

11. Coordonări de programe/granturi finanțate din sursă internațională (se menționează și valoarea)

Kleinproject, Universiteit Antwerpen, Belgium, PI,
valoarea: 7500 euro

12. Coordonări de programe/granturi finanțate din sursă națională (se menționează și valoarea)

13. Profesor invitat la universitati de prestigiu, cu titlu oficial

Visiting scientist, Los Alamos National Laboratory, 2008

14. Membru în comisii profesionale relevante, cu titlu oficial

15. Conferințe invitate internaționale

invited talk at the Conference on Emerging Paradigms in Nonlinear Science,
Los Alamos, January 2006

16. Membru în comitete de organizare sau științifice ale unor conferințe internaționale

III. Realizare remarcabilă

(Descrieți într-o manieră cât mai accesibilă (în maximum 1 pagină) cea mai importantă realizare științifică/tehnică/artistică din ultimii 5 ani și impactul acesteia.)

Articolul

Dynamics, Rectification, and Fractionation for Colloids on Flashing Substrates

A.Libál, C.Reichhardt, B.Jankó, C.J.Olson Reichhardt

Phys. Rev. Lett **96**, 188301 (2006)

Impact factor: 7.180

a fost foarte bine primit de comunitatea stiintifica si a incurajat studiul posibilitatilor care se deschid prin folosirea optical tweezer-urilor in soft matter physics, in particular in colloidal matter.

Data:

Semnătura:

Certific validitatea datelor prezentate

Sef de catedră,