



## Keyword index

### Vol. 15, 2014

**A**

**Ab initio DFT calculation** – de Lais-sardière G.T., 70  
**Aberration correction** – Colliex C., 101  
**Aberration correctors** – Hawkes P., 110  
**Abrikosov lattice** – Serfaty S., 539  
**Acceleration** – Blasi P., 329  
**Actinide dioxides** – Magnani N., 580  
**Actinide oxides** – Walstedt R.E., 563  
**Actinides** – Santini P., 573  
**Adsorption** – Monteux C., 775  
**Aging** – Fameau A.-L., 748  
**Americium** – Daustray R., 481  
**AMMRF** – Ringer S.P., 269  
**Angular momentum** – Verbeeck J., 190  
**Anisotropic superconductivity** – Ōnuki Y., 616  
**Anisotropy** – Bertaina M.E., 300 – Kam-pert K.-H., 318  
**Ankle** – Bertaina M.E., 300 – Deligny O., 367  
**Antenna** – Sokoloff J., 468  
**Aperiodic tilings** – Cahn J.W., e1  
**Aperiodicity** – Mosseri R., 90  
**Applications** – Biennu Y., 719  
**Approximant crystalline phases** – Guyot P., 12  
**Approximants** – Gómez C.P., 30  
**Aqueous foams** – Dollet B., 731  
**Atom interferometer** – Tackmann G., 884  
**Atom probe** – Épicier T., 276  
**Atomic bounds with nearly free elec-trons** – Friedel J., 3  
**Atomic bounds with transitional elec-trons** – Friedel J., 3  
**Atomic resolution** – Bals S., 140 – Boyes E.D., 200  
**Atomic resolution tomography** – Koch C.T., 119  
**Atomic steps** – Spencer Baskin J., 176  
**Auroral physics** – Ceconi B., 441  
**Automatic sequences** – Allouche J.-P., 6

**B**

**Bose–Einstein condensate** – Sato Y., 898  
**Bright soliton** – Herzog C., 285  
**Broadband and ultra-compact antenna** – Hafdallah Ouslimani H., 458  
**Buckling** – Burteau A., 705

**C**

**Carbon** – Mangler C., 241  
**Carbon nanotube** – Mangler C., 241  
**Catalyst** – Zhang B., 258  
**Catalytic reactions** – Boyes E.D., 200  
**Cathodoluminescence** – Kociak M., 158  
**Cd–Yb type structure** – Gómez C.P., 30  
**Cellular materials** – Maire É., 674 – Ran-drianalisoa J., 683  
**Ceramic** – Salvo L., 662  
**Ceramic foams** – Randrianalisoa J., 683  
**Chemical composition** – Zhang B., 258  
**Chemical order** – Gómez C.P., 30  
**Cluster** – Gómez C.P., 30  
**Coarsening** – Zabler S., 653  
**Coaxial cell** – Georget É., 448  
**Cold atoms** – Barrett B., 875 – Tackmann G., 884  
**Cold plasma** – Sokoloff J., 468  
**Collaborative research** – Ringer S.P., 269 – Épicier T., 276 – Snoeck E., 281  
**Commensurate (crystallines) and in-commensurate (quasicrystalline) structures** – Friedel J., 3  
**Communication** – Bérenger J.-P., 393  
**Complex intermetallic alloys** – Quiquan-don M., 18  
**Complex intermetallic phases** – Mosseri R., 90  
**Complex metallic alloys** – de Laissardière G.T., 70  
**Composite pairing** – Flint R., 557  
**Compressed sensing** – Koch C.T., 119  
**Correlated electrons** – Alloul H., 519  
**Cosmic ray sources** – Yoshida S., 309

– Bertaina M.E., 300 – Yoshida S., 309 – Lipari P., 357 – Deligny O., 367 – Harari D., 376  
**Coulomb gas** – Serfaty S., 539  
**Creep** – Burteau A., 705  
**Crystals** – Cahn J.W., e1  
**Cuprates** – Alloul H., 519

**D**

**3D** – Maire É., 674  
**Damage** – Bouchaud É., 527  
**Decagonal phases** – Steurer W., 40  
**Decaying homogeneous turbulence** – Marzougui H., 509  
**Defects** – Mosseri R., 90  
**Diagnostic** – Heurax S., 421  
**Dislocation structure and dynamics** – Legros M., 224  
**Dislocations** – Mompou F., 82  
**Dissipation** – Dollet B., 731  
**Domain decomposition** – Lecouvez M., 403  
**Drainage** – Zabler S., 653  
**Dynamic process** – Zhang B., 258  
**Dynamics** – Janssen T., 58

**E**

**Earth rotation** – Schreiber K.U., 859  
**EDX** – Suenaga K., 151  
**EELS** – Suenaga K., 151  
**Elasticity** – Dollet B., 731  
**Electric fields** – Pozzi G., 126  
**Electromagnetic characterization** – Georget É., 448  
**Electromagnetic optics** – Maystre D., 387  
**Electromagnetic security** – Kasmi C., 415  
**Electromagnetic waves** – Maystre D., 387  
**Electromagnetics** – Maystre D., 387  
**Electron energy loss spectroscopy** – Kociak M., 158

**Electron holography** – Pozzi G., 126  
**Electron microscopy** – Spencer Baskin J., 176 – Zhang B., 258 – Épicier T., 276  
**Electron per atom ratio** – Gómez C.P., 30  
**Electron tomography** – Bals S., 140  
**Electronic structure** – Shick A.B., 640  
**Electronic transport** – de Laissardière G.T., 70  
**Energy spectrum** – Bertaina M.E., 300 – Kampert K.-H., 318  
**ESTEEM** – Snoeck E., 281  
**Eukaryotic cell** – Schuh T., 214  
**Europe** – Snoeck E., 281  
**Excess model** – Kasmi C., 415  
**Excitons** – Kociak M., 158  
**Extreme tendencies** – Kasmi C., 415

## F

**FDTD** – Bérenger J.-P., 393  
**Fermi surface** – Ōnuki Y., 616  
**Ferromagnetism** – Aoki D., 630  
**Fiber-optic gyroscope** – Lefèvre H.C., 851  
**Field mapping** – Pozzi G., 126  
**Fission products** – Dautray R., 481  
**Flexible material** – Georget É., 448  
**Fluorescence** – Darrigol O., 789  
**Foam** – Zabler S., 653 – Salvo L., 662 – Lhuissier P., 696 – Fameau A.-L., 748 – Montoux C., 775  
**Foam mechanics** – Zabler S., 653  
**Forward physics** – Lipari P., 357  
**Frustrations** – Mosseri R., 90

## G

**Galactic magnetic field** – Farrar G.R., 339  
**Galactic/extragalactic transition** – Blasi P., 329 – Deligny O., 367  
**Geophysics** – Barrett B., 875  
**Ginzburg–Landau equations** – Serfaty S., 539  
**Glasses** – Cahn J.W., e1  
**Gold nanoparticle** – Schuh T., 214  
**Goniopolarimetry** – Cecconi B., 441  
**Graphene** – Mangler C., 241  
**Gravito-magnetism** – Di Virgilio A., 866  
**Gyroscopes** – Tackmann G., 884  
**GZK** – Harari D., 376

## H

**Hadronic interactions** – Lipari P., 357  
**Heating** – Heuraux S., 421  
**Heavy fermion** – Ōnuki Y., 616 – Aoki D., 630  
**Hidden order** – Flint R., 557 – Ikeda H., 587  
**High-resolution electron microscopy** – Mangler C., 241  
**Hubbard model** – Alloul H., 519  
**Hume Rothery and Raynor compounds** – Friedel J., 3

## I

**Icosahedral AlMnSi, AlLiCu phases** – Guyot P., 12  
**Icosahedral phases** – Quiquandon M., 18  
**Image analysis** – Maire É., 674  
**In situ electron microscopy** – Boyes E.D., 200  
**In situ TEM** – Legros M., 224  
**Inertial navigation** – Lefèvre H.C., 851 – Barrett B., 875  
**Inertial sensing** – Tackmann G., 884  
**Inertial sensor** – Di Virgilio A., 866  
**Infrastructure** – Ringer S.P., 269 – Épicier T., 276 – Snoeck E., 281  
**Inorganic foam and cellular materials** – Bienvenu Y., 719  
**Interactions atom–solid surface** – Boyes E.D., 200  
**Interface** – Montoux C., 775  
**Interferometry** – Darrigol O., 789  
**Intermetallics** – Steurer W., 40  
**Inverse dynamical electron scattering** – Koch C.T., 119  
**Iron knee** – Deligny O., 367  
**Isotropic solids** – Cahn J.W., e1

## J

**Josephson effects** – Sato Y., 898

## K

**Knee** – Bertaina M.E., 300 – Blasi P., 329  
**Kondo physics** – Flint R., 557

## L

**Laguerre–Voronoi tessellation** – Randri-analisoa J., 683  
**LDA + U theory** – Magnani N., 580  
**Leaky wave** – Sokoloff J., 468  
**Length of the day** – Di Virgilio A., 866  
**Lense–Thirring effect** – Di Virgilio A., 866  
**LF** – Bérenger J.-P., 393  
**Light–matter interactions** – Barrett B., 875  
**Limited coalescence** – Schmitt V., 761  
**Limits on the neutrino fluxes** – Stanev T., 349  
**Liquid specimen** – Schuh T., 214  
**Low magnetic Reynolds number** – Marzougui H., 509  
**Low-dimension materials** – Suenaga K., 151  
**Low-voltage electrons** – Koch C.T., 119

## M

**Magnetic deflections** – Farrar G.R., 339  
**Magnetic fields** – Pozzi G., 126 – Bom-mier V., 430  
**Magnetic properties** – Verbeeck J., 190

**Magneto hydrodynamics (MHD)** – Bom-mier V., 430  
**Markets** – Bienvenu Y., 719  
**Mass composition** – Bertaina M.E., 300 – Kampert K.-H., 318 – Lipari P., 357  
**Materials science** – Snoeck E., 281  
**Matter-wave interferometry** – Sato Y., 898  
**Matter-wave Sagnac interferometer** – Barrett B., 875  
**Maxwell equations** – Maystre D., 387  
**Mechanical properties** – Mompiau F., 92  
**Metal** – Salvo L., 662  
**Metallic foams** – Zabler S., 653 – Randri-analisoa J., 683  
**Metamaterial** – Hafdallah Ouslimani H., 458  
**Metamaterials** – Sokoloff J., 468  
**METSA** – Épicier T., 276  
**MHD turbulence** – Marzougui H., 509  
**Microanalysis** – Ringer S.P., 269  
**Microscopy** – Ringer S.P., 269  
**Microtomography** – Burteau A., 705  
**Microwave** – Sokoloff J., 468  
**Mirrors** – Hawkes P., 110  
**Model sets** – Allouche J.-P., 6  
**Monopole antenna** – Hafdallah Ousli-mani H., 458  
**Multipolar fluctuations** – Ikeda H., 587  
**Multipolar order** – Walstedt R.E., 563 – Ikeda H., 587  
**Multipolar ordering** – Magnani N., 580  
**Multiscale** – Dollet B., 731

## N

**N-dim crystallography** – Quiquandon M., 18  
**Nano-optics** – Kociak M., 158  
**Nanolaboratory** – Colliex C., 101  
**Nanomanipulation** – Verbeeck J., 190  
**Nanostructures** – Bals S., 140  
**Near-field** – Spencer Baskin J., 176  
**Networking** – Épicier T., 276  
**Neutrino** – Yoshida S., 309  
**Neutrino and gamma ray production** – Stanev T., 349  
**Nickel foam** – Burteau A., 705  
**Noise** – Hawkes P., 110  
**Non-conventional superconductors** – Griveau J.-C., 599  
**NpPd<sub>5</sub>Al<sub>2</sub>** – Ōnuki Y., 616  
**Nuclear magnetic resonance** – Walstedt R.E., 563  
**Nuclear power** – Dautray R., 481

## O

**One-component plasma** – Serfaty S., 539  
**One-dimensional Bose gas** – Herzog C., 285  
**Open cell foam** – Burteau A., 705  
**Optics** – Darrigol O., 789  
**Ordered solids** – Cahn J.W., e1

## P

**Particle adsorption** – Schmitt V., 761  
**Particle shape** – Zhang B., 258

**Particles** – Fameau A.-L., 748  
**Phase plates** – Hawkes P., 110  
**Phasons** – Janssen T., 58  
**Photoemission** – Shick A.B., 640  
**Pickering emulsions** – Schmitt V., 761  
**PINEM** – Spencer Baskin J., 176  
**Plasma** – Heurax S., 421 – Bommier V., 430  
**Plastic deformation** – Legros M., 224  
**Plasticity** – Dollet B., 731  
**Plutonium** – Dautray R., 481  
**Polyatomic clusters** – Guyot P., 12  
**Polymer** – Salvo L., 662 – Monteux C., 775  
**Polymer foams** – Randrianalisoa J., 683  
**Precision measurements** – Barrett B., 875  
**Processing** – Salvo L., 662  
**Processing routes** – Bienvenu Y., 719  
**Propagation** – Bérenger J.-P., 393  
**Protein aggregates** – Fameau A.-L., 748  
**Pseudo-gap** – Alloul H., 519  
**Ptychography** – Hawkes P., 110

## Q

**Quadrupoles** – Santini P., 573  
**Quantum gravity** – Vanhove P., 547  
**Quantum liquid** – Herzog C., 285  
**Quasi-brittle fracture** – Bouchaud É., 527  
**Quasicrystal** – Allouche J.-P., 6 – Quiquandon M., 18 – Gómez C.P., 30 – Steurer W., 40 – Ledieu J., 48 – Janssen T., 58 – de Laissardière G.T., 70 – Momprou F., 82 – Cahn J.W., e1  
**Quasiparticles** – Santini P., 573  
**Quasiperiodicity** – Guyot P., 12

## R

**Radio electricity** – Maystre D., 387  
**Radioastronomy** – Cecconi B., 441  
**Relative permittivity** – Georget É., 448  
**Resolution theory** – Schuh T., 214  
**Rheology** – Dollet B., 731  
**Riesz potential** – Lecouvez M., 403  
**Ring laser gyroscope** – El Badaoui N., 841 – Schreiber K.U., 859  
**Ring-laser** – Di Virgilio A., 866  
**Ring-laser gyroscope** – Lefèvre H.C., 851  
**Rotation sensing** – Sato Y., 898

## S

**“Sabre” antenna** – Hafdallah Ouslimani H., 458  
**Safety** – Dautray R., 481  
**Sagnac** – Darrigol O., 789  
**Sagnac effect** – Darrigol O., 789 – El Badaoui N., 841 – Lefèvre H.C., 851 – Schreiber K.U., 859 – Di Virgilio A., 866 – Sato Y., 898  
**Sample holder** – Georget É., 448  
**Scaling laws** – Lhuissier P., 696  
**Scanning transmission electron microscopy** – Kociak M., 158  
**Scattering** – Lecouvez M., 403  
**Scattering amplitudes** – Vanhove P., 547  
**Seismology** – Schreiber K.U., 859  
**SEM** – Maire É., 674  
**Signal generation and recording** – Colliex C., 101  
**Silicate glass** – Bouchaud É., 527  
**Simulation** – Heurax S., 421  
**Single atom spectroscopy** – Suenaga K., 151  
**Solid-state laser** – El Badaoui N., 841  
**Space physics** – Cecconi B., 441  
**Stability** – Fameau A.-L., 748  
**STEM** – Suenaga K., 151 – Schuh T., 214  
**Stimulated Raman transitions** – Barrett B., 875  
**Stimuli-responsive** – Schmitt V., 761  
**Stratified media** – Bommier V., 430  
**Stress corrosion cracking** – Bouchaud É., 527  
**String theory** – Vanhove P., 547  
**Strong electron correlations** – Shick A.B., 640  
**Structural properties** – Lhuissier P., 696  
**Structure** – Salvo L., 662  
**Sun: photosphere** – Bommier V., 430  
**Sun: surface magnetism** – Bommier V., 430  
**Sunspots** – Bommier V., 430  
**Superconductivity** – Alloul H., 519 – Serfaty S., 539 – Griveau J.-C., 599  
**Superfluid helium** – Sato Y., 898  
**Surface** – Zhang B., 258  
**Surface plasmons** – Kociak M., 158  
**Surface rheology** – Monteux C., 775  
**Surface science** – Ledieu J., 48  
**Surfactant aggregates** – Fameau A.-L., 748  
**Surfactants** – Zabler S., 653

## T

**TEM** – Momprou F., 82  
**TEMPEST** – Kasmi C., 415

**Thin film growth** – Ledieu J., 48  
**Three-dimensional reconstruction** – Bals S., 140  
**Time-lapse STEM** – Schuh T., 214  
**Topological charge** – Verbeeck J., 190  
**Transmission conditions** – Lecouvez M., 403  
**Transmission Electron Microscopy** – Colliex C., 101 – Pozzi G., 126 – Verbeeck J., 190 – Snoeck E., 281  
**Transuranium** – Griveau J.-C., 599

## U

**UCoGe** – Aoki D., 630  
**UGe<sub>2</sub>** – Onuki Y., 616 – Aoki D., 630  
**UHECR** – Kampert K.-H., 318 – Blasi P., 329 – Farrar G.R., 339  
**Ultra high energy** – Yoshida S., 309 – Harari D., 376  
**Ultracold atoms** – Herzog C., 285  
**Ultrahigh energy cosmic rays** – Stanev T., 349  
**Unconventional superconductivity** – Aoki D., 630 – Shick A.B., 640  
**Universal photon backgrounds** – Stanev T., 349  
**UO<sub>2</sub>** – Santini P., 573  
**UPT<sub>3</sub>** – Onuki Y., 616  
**URhGe** – Aoki D., 630  
**URu<sub>2</sub>Si<sub>2</sub>** – Ikeda H., 587

## V

**VHECR** – Blasi P., 329  
**Viscoplasticity** – Burteau A., 705  
**VLF** – Bérenger J.-P., 393  
**Voronoi tessellation** – Randrianalisoa J., 683  
**Vortex beam** – Verbeeck J., 190  
**Vortex beams** – Hawkes P., 110  
**Vortices** – Serfaty S., 539

## W

**Wave** – Heurax S., 421

## X

**X-ray tomography** – Maire É., 674  
**X-rays** – Darrigol O., 789