

# A.Schiavi - publications (2012)

Jacquemot2011

Studying ignition schemes on European laser facilities

S. Jacquemot and F. Amiranoff and S. D. Baton and J. C. Chanteloup and C. Labaune and M. Koenig and D. T. Michel and F. Perez and H. P. Schlenvoigt and B. Canaud and C. C. Clerouin and G. Debras and S. Depierreux and J. Ebrardt and D. Juraszek and S. Lafitte and P. Loiseau and J. L. Miquel and F. Philippe and C. Rousseaux and N. Blanchot and C. B. Edwards and P. Norreys and S. Atzeni and A. Schiavi and J. Breil and J. L. Feugeas and L. Hallo and M. Lafon and X. Ribeyre and J. J. Santos and G. Schurtz and V. Tikhonchuk and A. Debayle and J. J. Honrubia and M. Temporal and D. Batani and J. R. Davies and F. Fiuza and R. A. Fonseca and L. O. Silva and L. A. Gizzi and P. Koester and L. Labate and J. Badziak and O. Klimo

NUCLEAR FUSION 51 094025 (2011)

[doi:10.1088/0029-5515/51/9/094025](https://doi.org/10.1088/0029-5515/51/9/094025)

Sarri2011

Observation of plasma density dependence of electromagnetic soliton excitation by an intense laser pulse

G. Sarri and S. Kar and L. Romagnani and S. V. Bulanov and C. A. Cecchetti and M. Galimberti and L. A. Gizzi and R. Heathcote and R. Jung and I. Kourakis and J. Osterholz and A. Schiavi and O. Willi and M. Borghesi

PHYSICS OF PLASMAS 18 080704 (2011)

[doi:10.1063/1.3625261](https://doi.org/10.1063/1.3625261)

Schiavi2011

Illumination stability for high-repetition-rate laser facilities in direct-drive inertial confinement fusion

A. Schiavi and S. Atzeni and A. Marocchino

EPL 94 35002 (2011)

[doi:10.1209/0295-5075/94/35002](https://doi.org/10.1209/0295-5075/94/35002)

Atzeni2011

Studies on the robustness of shock-ignited laser fusion targets

S. Atzeni and A. Schiavi and A. Marocchino

PLASMA PHYSICS AND CONTROLLED FUSION 53 035010 (2011)

[doi:10.1088/0741-3335/53/3/035010](https://doi.org/10.1088/0741-3335/53/3/035010)

Fuchs2010

Enhanced Propagation for Relativistic Laser Pulses in Inhomogeneous Plasmas Using Hollow Channels

J. Fuchs and E. d'Humieres and Y. Sentoku and P. Antici and S. Atzeni and H. Bandulet and S. Depierreux and C. Labaune and A. Schiavi

PHYSICAL REVIEW LETTERS 105 225001 (2010)

[doi:10.1103/PhysRevLett.105.225001](https://doi.org/10.1103/PhysRevLett.105.225001)

Marocchino2010

Numerical study of the ablative Richtmyer-Meshkov instability of laser-irradiated deuterium and deuterium-tritium targets

A. Marocchino and S. Atzeni and A. Schiavi

Physics of Plasmas 17 112703 (10 pp.) (2010)

[doi:10.1063/1.3505112](https://doi.org/10.1063/1.3505112)

Ravasio2010

Proton radiography of a shock-compressed target

A. Ravasio and L. Romagnani and S. Le Pape and A. Benuzzi-Mounaix and C. Cecchetti and D. Batani and T. Boehly and M. Borghesi and R. Dezulian and L. Gremillet and E. Henry and D.

Hicks and B. Loupias and A. MacKinnon and N. Ozaki and H. S. Park and P. Patel and A. Schiavi

- and T. Vinci and R. Clarke and M. Notley and S. Bandyopadhyay and M. Koenig  
Physical Review E - Statistical, Nonlinear, and Soft Matter Physics 82 (2010)  
[doi:10.1103/PhysRevE.82.016407](https://doi.org/10.1103/PhysRevE.82.016407)
- Loupias2009  
Propagation of laser-generated plasma jet in an ambient medium  
B. Loupias and E. Falize and C. D. Gregory and T. Vinci and S. Pikuz and J. Waugh and M. Koenig  
and A. Ravasio and W. Nazarov and C. Michaut and S. Bouquet and Y. Kuramitsu and D. Seiichi  
and N. C. Woolsey and Y. Sakawa and H. Takabe and A. Schiavi and S. Atzeni  
Plasma Physics and Controlled Fusion 51 (2009)  
[doi:10.1088/0741-3335/51/12/124027](https://doi.org/10.1088/0741-3335/51/12/124027)
- Antici2009139  
Time and space resolved interferometry for detecting plasma expansion from solid targets  
P. Antici and J. Fuchs and M. Borghesi and T. Grismayer and S. Atzeni and C. A. Cecchetti and L.  
Gremillet and A. Mancic and P. Mora and A. C. Pipahl and A. Schiavi and T. Toncian and O. Willi  
and P. Audebert  
European Physical Journal: Special Topics 175 139-142 (2009)  
[doi:10.1140/epjst/e2009-01131-6](https://doi.org/10.1140/epjst/e2009-01131-6)
- Atzeni2009b  
Studies on targets for inertial fusion ignition demonstration at the HiPER facility  
S. Atzeni and J. R. Davies and L. Hallo and J. J. Honrubia and P. H. Maire and M. Olazabal-Loumé  
and J. L. Feugeas and X. Ribeyre and A. Schiavi and G. Schurtz and J. Breil and P. Nicola  
Nuclear Fusion 49 (2009)  
[doi:10.1088/0029-5515/49/5/055008](https://doi.org/10.1088/0029-5515/49/5/055008)
- Atzeni2009a  
Stopping and scattering of relativistic electron beams in dense plasmas and requirements for fast  
ignition  
S. Atzeni and A. Schiavi and J. R. Davies  
Plasma Physics and Controlled Fusion 51 (2009)  
[doi:10.1088/0741-3335/51/1/015016](https://doi.org/10.1088/0741-3335/51/1/015016)
- Cecchetti2009  
Magnetic field measurements in laser-produced plasmas via proton deflectometry  
C. A. Cecchetti and M. Borghesi and J. Fuchs and G. Schurtz and S. Kar and A. MacChi and L.  
Romagnani and P. A. Wilson and P. Antici and R. Jung and J. Osterholtz and C. A. Pipahl and O.  
Willi and A. Schiavi and M. Notley and D. Neely  
Physics of Plasmas 16 (2009)  
[doi:10.1063/1.3097899](https://doi.org/10.1063/1.3097899)
- Batani2009  
LASER-driven fast electron dynamics in gaseous media under the influence of large electric fields  
D. Batani and S. D. Baton and M. Manclossi and D. Piazza and M. Koenig and A. Benuzzi-  
Mounaix and H. Popescu and C. Rousseaux and M. Borghesi and C. Cecchetti and A. Schiavi  
Physics of Plasmas 16 (2009)  
[doi:10.1063/1.3080746](https://doi.org/10.1063/1.3080746)
- Migliorati2009161  
A vlasov solver for collective effects in particle accelerators  
M. Migliorati and G. Dattoli and A. Schiavi and M. Venturini  
Nuovo Cimento della Societa Italiana di Fisica C 32 161-164 (2009)  
[doi:10.1393/ncc/i2009-10394-7](https://doi.org/10.1393/ncc/i2009-10394-7)
- Antici2009  
Laser acceleration of high-energy protons in variable density plasmas  
P. Antici and J. Fuchs and E. D'Humières and J. Robiche and E. Brambrink and S. Atzeni and A.  
Schiavi and Y. Sentoku and P. Audebert and H. Pépin  
New Journal of Physics 11 (2009)  
[doi:10.1088/1367-2630/11/2/023038](https://doi.org/10.1088/1367-2630/11/2/023038)
- Borghesi20081833

Laser-driven proton beams: Acceleration mechanism, beam optimization, and radiographic applications

M. Borghesi and C. A. Cecchetti and T. Toncian and J. Fuchs and L. Romagnani and S. Kar and P. A. Wilson and P. Antici and P. Audebert and E. Brambrink and A. Pipahl and M. Amin and R. Jung and J. Osterholz and O. Willi and W. Nazarov and R. J. Clarke and M. Notley and D. Neely and P. Mora and T. Grismayer and G. Schurtz and A. Schiavi and Y. Sentoku and E. d'Humieres  
IEEE Transactions on Plasma Science 36 1833-1842 (2008)

[doi:10.1109/TPS.2008.927142](https://doi.org/10.1109/TPS.2008.927142)

Kar2008

Plasma jets driven by ultraintense-laser interaction with thin foils

S. Kar and M. Borghesi and S. V. Bulanov and M. H. Key and T. V. Liseykina and A. MacChi and A. J. MacKinnon and P. K. Patel and L. Romagnani and A. Schiavi and O. Willi  
Physical Review Letters 100 (2008)

[doi:10.1103/PhysRevLett.100.225004](https://doi.org/10.1103/PhysRevLett.100.225004)

RavasioPoP08

Hard x-ray radiography for density measurement in shock compressed matter

A. Ravasio and M. Koenig and S. L. Pape and A. Benuzzi-Mounaix and H. S. Park and C. Cecchetti and P. Patel and A. Schiavi and N. Ozaki and A. Mackinnon and B. Loupias and D. Batani and T. Boehly and M. Borghesi and R. Dezulian and E. Henry and M. Notley and S. Bandyopadhyay and R. Clarke and T. Vinci

Physics of Plasmas 15 060701 (2008)

[doi:10.1063/1.2928156](https://doi.org/10.1063/1.2928156)

RomagnaniLPB08

Proton probing measurement of electric and magnetic fields generated by ns and ps laser-matter interactions

L. Romagnani and M. Borghesi and C. A. Cecchetti and S. Kar and P. Antici and P. Audebert and S. Bandhoupadajay and F. Ceccherini and T. Cowan and J. Fuchs and M. Galimberti and L. A. Gizzi and T. Grismayer and R. Heathcote and R. Jung and T. V. Liseykina and A. Macchi and P. Mora and D. Neely and M. Notley and J. Osterholtz and C. A. Pipahl and G. Pretzler and A. Schiavi and G. Schurtz and T. Toncian and P. A. Wilson and O. Willi

Laser and Particle Beams 26 241-248 (2008)

[doi:10.1017/S0263034608000281](https://doi.org/10.1017/S0263034608000281)

CP\_EPAC08\_Migliorati

A Four-Dimensional Vlasov Solver for Microbunching Instability in the Injection System for X-Ray Fels

M. Migliorati and A. Schiavi and G. Dattoli and M. Venturini  
(2008)

[doi:](https://doi.org/)

CP\_IFSA07\_Atzeni

Fast ignitor target studies for HiPER

S. Atzeni and C. Bellei and J. R. Davies and R. G. Evans and J. J. Honrubia and P. Nicolai and X. Ribeyre and G. Schurtz and A. Schiavi and J. Badziak and J. Meyer-ter-Vehn and M. Olazabal-Loume and L. Silva and G. Sorasio

Journal of Physics: Conference Series 112 022062 (4pp) (2008)

[doi:10.1088/1742-6596/112/2/022062](https://doi.org/10.1088/1742-6596/112/2/022062)

CP\_IFSA07\_Fuchs

Laser-acceleration of high-energy protons in small-scale gradients

J. Fuchs and C. A. Cecchetti and M. Borghesi and T. Grismayer and E. d'Humieres and P. Antici and S. Atzeni and P. Mora and A. Pipahl and L. Romagnani and A. Schiavi and Y. Sentoku and T. Toncian and P. Audebert and O. Willi

Journal of Physics: Conference Series 112 022082 (4pp) (2008)

[doi:10.1088/1742-6596/112/2/022082](https://doi.org/10.1088/1742-6596/112/2/022082)

CP\_IFSA07\_Vinci

Laboratory astrophysics using high energy lasers: need for 2D simulation

T. Vinci and B. Loupias and M. Koenig and A. Benuzzi-Mounaix and S. Atzeni and A. Schiavi and E. Falize and S. Bouquet and C. Michaut and R. Kodama and N. Ozaki and C. D. Gregory and J. Howe and N. C. Woolsey and W. Nazarov

Journal of Physics: Conference Series 112 042012 (4pp) (2008)

[doi:10.1088/1742-6596/112/042012](https://doi.org/10.1088/1742-6596/112/042012)

CP\_IFSA07\_Loupias

Plasma jet experiments in vacuum and in ambient medium using high energy lasers

B. Loupias and E. Falize and C. D. Gregory and O. Akira and T. Vinci and J. Howe and M. Koenig and N. C. Woolsey and N. Ozaki and A. Benuzzi-Mounaix and S. Bouquet and C. Michaut and M. Rabec le Goahec and W. Nazarov and T. Pikuz and A. Y. Faenov and Y. Aglitskiy and S. Atzeni and A. Schiavi and Y. Sakawa and H. Takabe and R. Kodama

Journal of Physics: Conference Series 112 042022 (4pp) (2008)

[doi:10.1088/1742-6596/112/042022](https://doi.org/10.1088/1742-6596/112/042022)

BonifacioNIMA08

The quantum free-electron laser

R. Bonifacio and N. Piovella and M. M. Cola and L. Volpe and A. Schiavi and G. R. M. Robb  
Nuclear Instruments and Methods in Physics Research Section A 593 69--74 (2008)

[doi:10.1016/j.nima.2008.04.028](https://doi.org/10.1016/j.nima.2008.04.028)

SchiaviNIMA08

Three-dimensional free electron laser numerical simulations for a laser wiggler in the quantum regime

A. Schiavi and R. Bonifacio and N. Piovella and M. M. Cola and L. Volpe

Nuclear Instruments and Methods in Physics Research Section A 593 80--86 (2008)

[doi:10.1016/j.nima.2008.04.064](https://doi.org/10.1016/j.nima.2008.04.064)

ColaNIMA08

3D Wigner model for a quantum free electron laser with a laser wiggler

M. M. Cola and L. Volpe and N. Piovella and A. Schiavi and R. Bonifacio

Nuclear Instruments and Methods in Physics Research Section A 593 75--79 (2008)

[doi:10.1016/j.nima.2008.04.046](https://doi.org/10.1016/j.nima.2008.04.046)

BatonPoP08

Inhibition of fast electron energy deposition due to preplasma filling of cone-attached targets

S. D. Baton and M. Koenig and J. Fuchs and A. Benuzzi-Mounaix and P. Guillou and B. Loupias and T. Vinci and L. Gremillet and C. Rousseaux and M. Drouin and E. Lefebvre and F. Dorchie and C. Fourment and J. J. Santos and D. Batani and A. Morace and R. Redaelli and M.

Nakatsutsumi and R. Kodama and A. Nishida and N. Ozaki and T. Norimatsu and Y. Aglitskiy and S. Atzeni and A. Schiavi

Phys. Plasmas (USA) 15 042706 - 1 (2008)

[doi:10.1063/1.2903054](https://doi.org/10.1063/1.2903054)

AtzeniPoP08

Fast ignitor target studies for the HiPER project

S. Atzeni and A. Schiavi and J. J. Honrubia and X. Ribeyre and G. Schurtz and P. Nicolai and M. Olazabal-Loume and C. Bellei and R. G. Evans and J. R. Davies

Phys. Plasmas (USA) 15 056311 - 1 (2008)

[doi:10.1063/1.2895447](https://doi.org/10.1063/1.2895447)

KarPRL08

Plasma jets driven by ultraintense-laser interaction with thin foils

S. Kar and M. Borghesi and S. V. Bulanov and M. H. Key and T. V. Liseykina and A. Macchi and A. J. Mackinnon and P. K. Patel and L. Romagnani and A. Schiavi and O. Willi

Phys. Rev. Lett. (USA) 100 225004 - 1 (2008)

[doi:10.1103/PhysRevLett.100.225004](https://doi.org/10.1103/PhysRevLett.100.225004)

SchiaviCPC08

A transmission matrix model for ion beam energy deposition in stack detectors

A. Schiavi

Comput. Phys. Commun. (Netherlands) 178 35 - 9 (2008)

[doi:10.1016/j.cpc.2007.08.001](https://doi.org/10.1016/j.cpc.2007.08.001)

PiovellaPRL08

Three-dimensional Wigner-function description of the quantum free-electron laser

N. Piovella and M. M. Cola and L. Volpe and A. Schiavi and R. Bonifacio

Phys. Rev. Lett. (USA) 100 044801 - 1 (2008)

[doi:10.1103/PhysRevLett.100.044801](https://doi.org/10.1103/PhysRevLett.100.044801)

CP\_Erice05\_Migliorati

Simulations of Coherent Synchrotron Radiation Effects in Electron Machines

M. Migliorati and A. Schiavi and G. Dattoli

554--563 (2007)

[doi:](https://doi.org/)

CP\_Erice05\_Schiavi

QFEL: a numerical code for multi-dimensional simulation of free electron lasers in the quantum regime.

A. Schiavi and N. Piovella and G. R. M. Robb and R. Bonifacio

564--572 (2007)

[doi:](https://doi.org/)

CP\_AIP07\_Koenig

Radiative shocks and plasma jets as laboratory astrophysics experiments

M. Koenig and B. Loupiau and T. Vinci and N. Ozaki and A. Benuzzi-Mounaix and M. Rabec le Goahec and E. Falize and S. Bouquet and C. Michaut and G. Herpe and P. Baroso and W. Nazarov and Y. Aglitskiy and A. Y. Faenov and T. Pikuz and C. Courtois and N. C. Woolsey and C. D. Gregory and J. Howe and A. Schiavi and S. Atzeni

AIP Conf. Proc. (USA) 926 110 - 19 (2007)

[doi:10.1063/1.2768841](https://doi.org/10.1063/1.2768841)

KoenigASS07

Density measurements of shock compressed matter using short pulse laser diagnostics

M. Koenig and A. Ravasio and A. Benuzzi-Mounaix and B. Loupiau and N. Ozaki and M. Borghesi and C. Cecchetti and D. Batani and R. Dezulian and S. Lepape and P. Patel and H. S. Park and D. Hicks and A. Mckinnon and T. Boehly and A. Schiavi and E. Henry and M. Notley and R. Clark and S. Bandyopadhyay

Astrophys. Space Sci. (Netherlands) 307 257 - 61 (2007)

[doi:10.1007/s10509-006-9184-y](https://doi.org/10.1007/s10509-006-9184-y)

BorghesiLPB07

Impulsive electric fields driven by high-intensity laser matter interactions

M. Borghesi and S. Kar and L. Romagnani and T. Toncian and P. Antici and P. Audebert and E. Brambrink and F. Ceccherini and C. A. Cecchetti and J. Fuchs and M. Galimberti and L. A. Gizzi and T. Grismayer and T. Lyseikina and R. Jung and A. Macchi and P. Mora and J. Osterholtz and A. Schiavi and O. Willi

Laser Part. Beams (UK) 25 161 - 7 (2007)

[doi:10.1017/S0263034607070218](https://doi.org/10.1017/S0263034607070218)

FuchsPRL07

Laser-foil acceleration of high-energy protons in small-scale plasma gradients

J. Fuchs and C. A. Cecchetti and M. Borghesi and T. Grismayer and E. d'Humieres and P. Antici and S. Atzeni and P. Mora and A. Pipahl and L. Romagnani and A. Schiavi and Y. Sentoku and T. Toncian and P. Audebert and O. Willi

Phys. Rev. Lett. (USA) 99 015002 - 1 (2007)

[doi:10.1103/PhysRevLett.99.015002](https://doi.org/10.1103/PhysRevLett.99.015002)

KarNJOP07

Dynamics of charge-displacement channeling in intense laser-plasma interactions

S. Kar and M. Borghesi and C. A. Cecchetti and L. Romagnani and F. Ceccherini and T. V. Liseykina and A. Macchi and R. Jung and J. Osterholz and O. Willi and L. A. Gizzi and A. Schiavi and M. Galimberti and R. Heathcote

New Journal of Physics 9 402 (2007)

[doi:10.1088/1367-2630/9/11/402](https://doi.org/10.1088/1367-2630/9/11/402)

PiovellaOC07

A Wigner function model for free electron lasers

N. Piovella and M. M. Cola and L. Volpe and R. Gaiba and A. Schiavi and R. Bonifacio  
Optics Communications 274 347--353 (2007)

[doi:10.1016/j.optcom.2007.02.061](https://doi.org/10.1016/j.optcom.2007.02.061)

SchiaviPOP07

Nonlinear evolution of localized perturbations in the deceleration-phase Rayleigh-Taylor instability of an inertial confinement fusion capsule

A. Schiavi and S. Atzeni

Physics of Plasmas 14 070701 (2007)

[doi:10.1063/1.2751144](https://doi.org/10.1063/1.2751144)

AtzeniPOP07

Targets for direct-drive fast ignition at total laser energy of 200--400 kJ

S. Atzeni and A. Schiavi and C. Bellei

Physics of Plasmas 14 052702 (2007)

[doi:10.1063/1.2716682](https://doi.org/10.1063/1.2716682)

KarJOAP07

Analysis of latent tracks for MeV protons in CR-39

S. Kar and M. Borghesi and L. Romagnani and S. Takahashi and A. Zayats and V. Malka and S. Fritzler and A. Schiavi

Journal of Applied Physics 101 044510 (2007)

[doi:10.1063/1.2433744](https://doi.org/10.1063/1.2433744)

DattoliNIMA07

Study of coherent synchrotron radiation effects by means of a new simulation code based on the non-linear extension of the operator splitting method

G. Dattoli and M. Migliorati and A. Schiavi

Nuclear Instruments and Methods in Physics Research Section A 574 244-250 (2007)

[doi:10.1016/j.nima.2007.02.076](https://doi.org/10.1016/j.nima.2007.02.076)

CP\_ICAP\_Migliorati

Modeling High-Current Instabilities in Particle Accelerators

M. Migliorati and A. Schiavi and G. Dattoli

(2006)

[doi:](https://doi.org/)

CP\_EPS06\_Atzeni

Target studies for laser-driven fast ignition demonstration

S. Atzeni and C. Bellei and A. Schiavi

30I P-1.001 (2006)

[doi:](https://doi.org/)

CP\_EPS06\_Kar

High-intensity laser-plasma interaction with underdense plasmas: channel evolution and late-time ion dynamics

S. Kar and M. Borghesi and C. A. Cecchetti and L. Romagnani and F. Ceccherini and T. Lyseikina and A. Macchi and F. Pegoraro and R. Jung and J. Osterholtz and O. Willi and M. Galimberti and L. A. Gizzi and H. R. and A. Schiavi and S. V. Bulanov

30I O-3.009 (2006)

[doi:](https://doi.org/)

CP\_EPS06\_Schiavi

High-resolution 2D simulations of deceleration-phase RTI in the non-linear regime

A. Schiavi and S. Atzeni

30I O-4.005 (2006)

[doi:](https://doi.org/)

CP\_AIP06\_Borghesi

Ultrafast charge dynamics initiated by high-intensity, ultrashort laser-matter interaction



M. Borghesi and L. Romagnani and S. Kar and T. Toncian and P. Antici and P. Audebert and E. Brambrink and F. Ceccherini and C. A. Cecchetti and J. Fuchs and M. Galimberti and L. A. Gizzi and T. Grismayer and R. Jung and A. Macchi and P. Mora and J. Osterholtz and A. Schiavi and O. Willi

AIP Conf. Proc. (USA) 827 191 - 202 (2006)

[doi:10.1063/1.2195211](https://doi.org/10.1063/1.2195211)

BenuzziPPCF06

Laser-driven shock waves for the study of extreme matter states

A. Benuzzi-Mounaix and M. Koenig and A. Ravasio and T. Vinci and N. Ozaki and M. R. le Gloahec and B. Loupias and G. Huser and E. Henry and S. Bouquet and C. Michaut and D. Hicks and A. MacKinnon and P. Patel and H. S. Park and S. Le Pape and T. Boehly and M. Borghesi and C. Cecchetti and M. Notley and R. Clark and S. Bandyopadhyay and S. Atzeni and A. Schiavi and Y. Aglitskiy and A. Faenov and T. Pikuz and D. Batani and R. Dezulian and K. Tanaka

Plasma Phys. Control. Fusion (UK) 48 347 - 58 (2006)

[doi:10.1088/0741-3335/48/12B/S32](https://doi.org/10.1088/0741-3335/48/12B/S32)

CP\_IFSA05\_Vinci

Radiative shocks: new results for laboratory astrophysics

T. Vinci and M. Koenig and A. Benuzzi-Mounaix and N. Ozaki and A. Ravasio and L. Boireau and C. Michaut and S. Bouquet and S. Atzeni and A. Schiavi and O. Peyrusse

J. Phys. IV, Proc. (France) 133 1039 - 42 (2006)

[doi:10.1051/jp4:2006133210](https://doi.org/10.1051/jp4:2006133210)

CP\_IFSA05\_Atzeni

Laser-driven target for fast-ignition demonstration

S. Atzeni and C. Bellei and A. Schiavi

J. Phys. IV, Proc. (France) 133 429 - 32 (2006)

[doi:10.1051/jp4:2006133087](https://doi.org/10.1051/jp4:2006133087)

CP\_IFSA05\_Antici

Isochoric heating of matter by laser-accelerated high-energy protons

P. Antici and J. Fuchs and S. Atzeni and A. Benuzzi and E. Brambrink and M. Esposito and M. Koenig and A. Ravasio and J. Schreiber and A. Schiavi and P. Audebert

J. Phys. IV, Proc. (France) 133 1077 - 9 (2006)

[doi:10.1051/jp4:2006133218](https://doi.org/10.1051/jp4:2006133218)

BonifacioPRSTAB06

Quantum regime of free electron lasers starting from noise

R. Bonifacio and N. Piovella and G. R. M. Robb and A. Schiavi

Phys. Rev. ST Accel. Beams 9 090701 (2006)

[doi:10.1103/PhysRevSTAB.9.090701](https://doi.org/10.1103/PhysRevSTAB.9.090701)

KoenigPoP06

Radiative shocks: an opportunity to study laboratory astrophysics

M. Koenig and T. Vinci and A. Benuzzi-Mounaix and N. Ozaki and A. Ravasio and M. R. le Gloahec and L. Boireau and C. Michaut and S. Bouquet and S. Atzeni and A. Schiavi and O. Peyrusse and D. Batani

Phys. Plasmas (USA) 13 56504 - 1 (2006)

[doi:10.1063/1.2177637](https://doi.org/10.1063/1.2177637)

RAL05\_Cecchetti

Proton deflectometry measurements of self-generated magnetic fields in laser-produced plasmas

C. A. Cecchetti and M. Borghesi and S. Kar and P. A. Wilson and J. Fuchs and P. Antici and L. Romagnani and O. Willi and R. Jung and J. Osterholtz and A. Pipahl and A. Schiavi and S. Bandyopadhyay and M. Notley and D. Neely

(2005)

[doi:](https://doi.org/)

CP\_FEL05\_Bonifacio

Quantum SASE FEL with a Laser Wiggler

R. Bonifacio and M. Ferrario and G. R. M. Robb and N. Piovella and A. Schiavi and L. Serafini

(2005)

[doi:](#)

CP\_EPS05\_Romagnai

Charge dynamics and proton acceleration in ultrashort laser-solid interactions

L. Romagnani and J. Fuchs and M. Borghesi and P. Antici and P. Audebert and E. Brambrink and F. Ceccherini and C. Cecchetti and T. Cowan and T. Grismayer and S. Kar and A. Macchi and P. Mora and G. Pretzler and A. Schiavi and T. Toncian and O. Willi

29C O-3.004 (2005)

[doi:](#)

CP\_EPS05\_Vinci

Radiative Shocks: New Experiments for Laboratory Astrophysics

T. Vinci and M. Koenig and A. Benuzzi-Mounaix and N. Ozaki and A. Ravasio and L. Boireau and C. Michaut and S. Bouquet and S. Atzeni and A. Schiavi and P. Audebert

29C O-2.021 (2005)

[doi:](#)

CP\_EPS05\_Antici

Application of laser-accelerated high-energy protons for isochoric heating of matter

P. Antici and J. Fuchs and S. Atzeni and A. Benuzzi and E. Brambrink and M. Esposito and M. Koenig and A. Ravasio and J. Schreiber and A. Schiavi and P. Audebert

29C O-3.003 (2005)

[doi:](#)

BorghesiLaPB05

High-intensity laser-plasma interaction studies employing laser-driven proton probes

M. Borghesi and P. Audebert and S. V. Bulanov and T. Cowan and J. Fuchs and J. C. Gauthier and A. J. Mackinnon and P. K. Patel and G. Pretzler and L. Romagnani and A. Schiavi and T. Toncian and O. Willi

Laser Part. Beams (UK) 23 291 - 5 (2005)

[doi:10.1017/S0263034605050408](https://doi.org/10.1017/S0263034605050408)

AtzeniCPC05

Fluid and kinetic simulation of inertial confinement fusion plasmas

S. Atzeni and A. Schiavi and F. Califano and F. Cattani and F. Cornolti and D. Del Sarto and T. V. Liseykina and A. Macchi and F. Pegoraro

Comput. Phys. Commun. (Netherlands) 169 153 - 9 (2005)

[doi:10.1016/j.cpc.2005.03.036](https://doi.org/10.1016/j.cpc.2005.03.036)

RomagnaniPRL05

Dynamics of electric fields driving the laser acceleration of multi-MeV protons

L. Romagnani and J. Fuchs and M. Borghesi and P. Antici and P. Audebert and F. Ceccherini and T. Cowan and T. Grismayer and S. Kar and A. Macchi and P. Mora and G. Pretzler and A. Schiavi and T. Toncian and O. Willi

Phys. Rev. Lett. (USA) 95 195001 - 1 (2005)

[doi:10.1103/PhysRevLett.95.195001](https://doi.org/10.1103/PhysRevLett.95.195001)

BorghesiPRL05

Plasma ion evolution in the wake of a high-intensity ultrashort laser pulse

M. Borghesi and S. V. Bulanov and T. Z. Esirkepov and S. Fritzler and S. Kar and T. V. Liseykina and V. Malka and F. Pegoraro and L. Romagnani and J. P. Rousseau and A. Schiavi and O. Willi and A. V. Zayats

Physical Review Letters 94 195003 (2005)

[doi:10.1103/PhysRevLett.94.195003](https://doi.org/10.1103/PhysRevLett.94.195003)

RAL04\_Kar

Charge dynamics following high-intensity laser propagation through gas jet targets

S. Kar and M. Borghesi and L. Romagnani and C. A. Cecchetti and R. Jung and J. Osterholtz and O. Willi and J. Fuchs and A. Macchi and T. V. Liseykina and A. Schiavi and M. Galimberti and L. A. Gizzi and H. R. and D. Neely

(2004)



- [doi:](#)  
RAL04\_Breschi  
Spectral and angular characterization of laser-produced proton beams from dosimetric measurements  
E. Breschi and M. Galimberti and D. Giulietti and L. A. Gizzi and M. Borghesi and L. Romagnani and S. Kar and A. Schiavi and O. Willi  
(2004)
- [doi:](#)  
CP\_EPS04\_Kar  
Study of ultrashort, high intensity laser matter interaction via proton imaging  
S. Kar and M. Borghesi and L. Romagnani and A. V. Zayats and S. Fritzler and V. Malka and S. V. Bulanov and T. Z. Esirkepov and F. Pegoraro and A. Schiavi and O. Willi  
28G O-2.31 (2004)
- [doi:](#)  
CP\_EPS04\_Borghesi  
Detection of electrostatic fields driving proton acceleration from solid foils irradiated by high-intensity laser pulses  
M. Borghesi and L. Romagnani and P. Audebert and F. Ceccherini and F. Cornolti and T. Cowan and J. Fuchs and A. Macchi and F. Pegoraro and G. Pretzler and A. Schiavi and T. Toncian and O. Willi  
28G O-2.29 (2004)
- [doi:](#)  
AtzeniPPaCF04  
Converging geometry Rayleigh-Taylor instability and central ignition of inertial confinement fusion targets  
S. Atzeni and A. Schiavi and M. Temporal  
Plasma Physics and Controlled Fusion 46 B111-B120 (2004)  
[doi:10.1088/0741-3335/46/12B/010](https://doi.org/10.1088/0741-3335/46/12B/010)
- BreschiLaPB04  
Spectral and angular characterization of laser-produced proton beams from dosimetric measurements  
E. Breschi and M. Borghesi and M. Galimberti and D. Giulietti and L. A. Gizzi and L. Romagnani and A. Schiavi and O. Willi  
Laser and Particle Beams 22 393-397 (2004)  
[doi:10.1017/S0263034604040030](https://doi.org/10.1017/S0263034604040030)
- CanaudNF04  
High-gain direct-drive target design for the Laser Megajoule  
B. Canaud and X. Fortin and F. Garaude and C. Meyer and F. Philippe and M. Temporal and S. Atzeni and A. Schiavi  
Nuclear Fusion 44 1118-1129 (2004)  
[doi:10.1088/0029-5515/44/10/005](https://doi.org/10.1088/0029-5515/44/10/005)
- BorghesiPRL04  
Multi-MeV proton source investigations in ultraintense laser- foil interactions  
M. Borghesi and A. J. Mackinnon and D. H. Campbell and D. G. Hicks and S. Kar and P. K. Patel and D. Price and L. Romagnani and A. Schiavi and O. Willi  
Physical Review Letters 92 055003 (2004)  
[doi:10.1103/PhysRevLett.92.055003](https://doi.org/10.1103/PhysRevLett.92.055003)
- RAL03\_Kar  
Plasma jets driven by high power laser pulses  
S. Kar and M. Borghesi and L. Romagnani and A. J. Mackinnon and P. K. Patel and M. Key and A. Schiavi and O. Willi and A. Macchi  
(2003)
- [doi:](#)  
BorghesiRSI03

- Proton imaging detection of transient electromagnetic fields in laser-plasma interactions (invited)  
M. Borghesi and A. Schiavi and D. H. Campbell and M. G. Haines and O. Willi and A. J. Mackinnon and P. Patel and M. Galimberti and L. A. Gizzi  
Review of Scientific Instruments 74 1688-1693 (2003)  
[doi:10.1063/1.1534390](https://doi.org/10.1063/1.1534390)
- BorghesiAPL03  
Measurement of highly transient electrical charging following high-intensity laser-solid interaction  
M. Borghesi and L. Romagnani and A. Schiavi and D. H. Campbell and M. G. Haines and O. Willi and A. J. Mackinnon and M. Galimberti and L. Gizzi and R. J. Clarke and S. Hawkes  
Applied Physics Letters 82 1529-1531 (2003)  
[doi:10.1063/1.1560554](https://doi.org/10.1063/1.1560554)
- BorghesiLPB02a  
Propagation issues and energetic particle production in laser-plasma interactions at intensities exceeding  $10^{19}$  W/cm<sup>2</sup>  
M. Borghesi and D. H. Campbell and A. Schiavi and O. Willi and M. Galimberti and L. A. Gizzi and A. J. Mackinnon and R. D. Snavely and P. Patel and S. Hatchett and M. Key and W. Nazarov  
Laser Part. Beams (UK) 20 31 - 8 (2002)  
[doi:10.1017/S0263034602201044](https://doi.org/10.1017/S0263034602201044)
- BorghesiLPB02b  
Laser-produced protons and their application as a particle probe  
M. Borghesi and D. H. Campbell and A. Schiavi and O. Willi and A. J. Mackinnon and D. Hicks and P. Patel and L. A. Gizzi and M. Galimberti and R. J. Clarke  
Laser Part. Beams (UK) 20 269 - 75 (2002)  
[doi:10.1017/S0263034602202177](https://doi.org/10.1017/S0263034602202177)
- CP\_ADMIF02\_Borghesi  
Imaging of plasmas using proton beams generated by ultra-intense laser pulses  
M. Borghesi and D. H. Campbell and R. J. Clarke and M. Galimberti and L. A. Gizzi and M. Haines and A. J. MacKinnon and A. Schiavi and O. Willi  
International Conference on Advanced Diagnostics for Magnetic and Inertial Fusion 91 - 8 (2002)  
[doi:](https://doi.org/)
- BorghesiPoP02  
Electric field detection in laser-plasma interaction experiments via the proton imaging technique  
M. Borghesi and D. H. Campbell and A. Schiavi and M. G. Haines and O. Willi and A. J. Mackinnon and P. Patel and L. A. Gizzi and M. Galimberti and R. J. Clarke and F. Pegoraro and H. Ruhl and S. Bulanov  
Physics of Plasmas 9 2214-2220 (2002)  
[doi:10.1063/1.1459457](https://doi.org/10.1063/1.1459457)
- BorghesiPRL02  
Macroscopic evidence of soliton formation in multiterawatt laser-plasma interaction  
M. Borghesi and S. Bulanov and D. H. Campbell and R. J. Clarke and T. Z. Esirkepov and M. Galimberti and L. A. Gizzi and A. J. Mackinnon and N. M. Naumova and F. Pegoraro and H. Ruhl and A. Schiavi and O. Willi  
Physical Review Letters 88 135002 (2002)  
[doi:10.1103/PhysRevLett.88.135002](https://doi.org/10.1103/PhysRevLett.88.135002)
- RAL01\_Romagnani  
Imaging of thin solid objects with a laser produced proton beam via multiple scattering  
L. Romagnani and M. Borghesi and O. Willi and D. H. Campbell and A. Schiavi  
(2001)  
[doi:](https://doi.org/)
- CP\_EPS01\_Campbell  
Propagation of relativistically intense laser pulses through underdense and overdense preformed plasma  
D. H. Campbell and A. Schiavi and O. Willi and M. Borghesi and M. Galimberti and L. A. Gizzi

and A. J. Mackinnon and W. Nazarov  
25A W.07 (2001)

[doi:](#)

CP\_EPS01\_Schiavi

Observation of E-field structures in laser produced plasmas by proton imaging  
A. Schiavi and D. H. Campbell and O. Willi and M. Borghesi and H. Ruhl  
25A P5.077 (2001)

[doi:](#)

CP\_EPS01\_Galimberti

Multi-MeV particle detection in relativistic laser-plasma interactions  
M. Galimberti and A. Giulietti and D. Giulietti and L. A. Gizzi and M. Borghesi and D. H. Campbell and A. Schiavi and O. Willi and V. CavaSinni and V. Flaminio  
25A P1.112 (2001)

[doi:](#)

CP\_ICL00\_Willi

Propagation of an ultra-intense laser beam through underdense and overdense plasmas  
O. Willi and D. H. Campbell and A. Schiavi and M. Borghesi and M. Galimberti and L. A. Gizzi and W. Nazarov  
Proceedings of the International Conference on LASERS 2000 425 - 32 (2001)

[doi:](#)

CP\_SPIE01\_Borghesi

Propagation issues and fast particle source characterization in laser-plasma interactions at intensities exceeding  $10^{19} \text{ W/cm}^2$   
M. Borghesi and H. D. Campbell and M. Galimberti and L. A. Gizzi and A. J. Mackinnon and W. Nazarov and A. Schiavi and O. Willi  
Proc. SPIE - Int. Soc. Opt. Eng. (USA) 4424 414 - 17 (2001)

[doi:](#)

CP\_ICL00\_Borghesi

Fast particle generation in ultra-intense interaction experiments and applications  
M. Borghesi and D. H. Campbell and A. Schiavi and H. Gessner and O. Willi and A. J. MacKinnon and P. K. Katel and R. Snavely and S. Hatchett and L. A. Gizzi and M. Galimberti and R. J. Clarke and R. Allott and S. Hawkes and H. Ruhl  
Proceedings of the International Conference on LASERS 2000 451 - 8 (2001)

[doi:](#)

CP\_SPIE01\_Galimberti

Gamma-ray measurements in relativistic interaction with underdense plasmas  
M. Galimberti and A. Giulietti and D. Giulietti and L. A. Gizzi and M. Borghesi and H. D. Campbell and A. Schiavi and O. Willi  
Proc. SPIE - Int. Soc. Opt. Eng. (USA) 4424 512 - 15 (2001)

[doi:](#)

BorghesiPPaCF01

Proton imaging: a diagnostic for inertial confinement fusion/fast ignitor studies  
M. Borghesi and A. Schiavi and D. H. Campbell and M. G. Haines and O. Willi and A. J. Mackinnon and L. A. Gizzi and M. Galimberti and R. J. Clarke and H. Ruhl  
Plasma Physics and Controlled Fusion 43 267-276 (2001)

[doi:10.1088/0741-3335/43/12A/320](https://doi.org/10.1088/0741-3335/43/12A/320)

GizziLaPB01

Relativistic laser interactions with preformed plasma channels and gamma-ray measurements  
L. A. Gizzi and M. Galimberti and A. Giulietti and D. Giulietti and P. Tomassini and M. Borghesi and D. H. Campbell and A. Schiavi and O. Willi  
Laser and Particle Beams 19 181-186 (2001)

[doi:10.1017/S0263034601192025](https://doi.org/10.1017/S0263034601192025)

WilliLaPB01

Relativistic laser propagation through underdense and overdense plasmas

O. Willi and D. H. Campbell and A. Schiavi and M. Borghesi and M. Galimberti and L. A. Gizzi and W. Nazarov and A. J. Mackinnon and A. Pukhov and J. Meyer-Ter-Vehn  
Laser and Particle Beams 19 5-13 (2001)

[doi:10.1017/S0263034601191019](https://doi.org/10.1017/S0263034601191019)

MackinnonPRL01

Effect of plasma scale length on multi-MeV proton production by intense laser pulses

A. J. Mackinnon and M. Borghesi and S. Hatchett and M. H. Key and P. K. Patel and H. Campbell and A. Schiavi and R. Snavely and S. C. Wilks and O. Willi

Physical Review Letters 86 1769-1772 (2001)

[doi:10.1103/PhysRevLett.86.1769](https://doi.org/10.1103/PhysRevLett.86.1769)

RAL00\_Galimberti

Gamma-ray measurements in relativistic interactions with underdense plasmas

M. Galimberti and A. Giulietti and D. Giulietti and L. A. Gizzi and M. Borghesi and H. D. Campbell and A. Schiavi and O. Willi

(2000)

[doi:](https://doi.org/)

RAL00\_Schiavi

Nonlinear absorption of ultra-intense laser pulses in glass

A. Schiavi and H. D. Campbell and M. Borghesi and O. Willi

(2000)

[doi:](https://doi.org/)

RAL00\_Campbell

Investigation of ultra-intense laser interaction with overdense preformed plasma

H. D. Campbell and A. Schiavi and M. Borghesi and A. J. MacKinnon and M. Galimberti and L. A. Gizzi and W. Nazarov

(2000)

[doi:](https://doi.org/)

RAL00\_Borghesi1

Propagation of 50TW, picosecond pulses through preformed plasma channels

M. Borghesi and A. Schiavi and H. D. Campbell and O. Willi and M. Galimberti and L. A. Gizzi

(2000)

[doi:](https://doi.org/)

RAL00\_Borghes2

Radiography of dense matter with laser-produced protons: preliminary tests

M. Borghesi and A. J. MacKinnon and A. Schiavi and H. D. Campbell and O. Willi

(2000)

[doi:](https://doi.org/)

CP\_IFSA99\_Schiavi

Shock wave collisions in low density foams

A. Schiavi and M. Borghesi and J. Pasley and O. Willi and D. Neely and M. Notley and W. Nazarov

1187-1190 (2000)

[doi:](https://doi.org/)

RAL99\_Schiavi

Shock wave collisions in low density foams

A. Schiavi and M. Borghesi and J. Pasley and O. Willi

(1999)

[doi:](https://doi.org/)