Publication List

— Thomas Buchert

Date : February 1, 2017 ADS Citations : Total : 4430; normalized per author : 2720
H–INDEX : H=38 TORI–INDEX : tori=61,8
Citations per year (averaged over the past five years) : ≅ 300

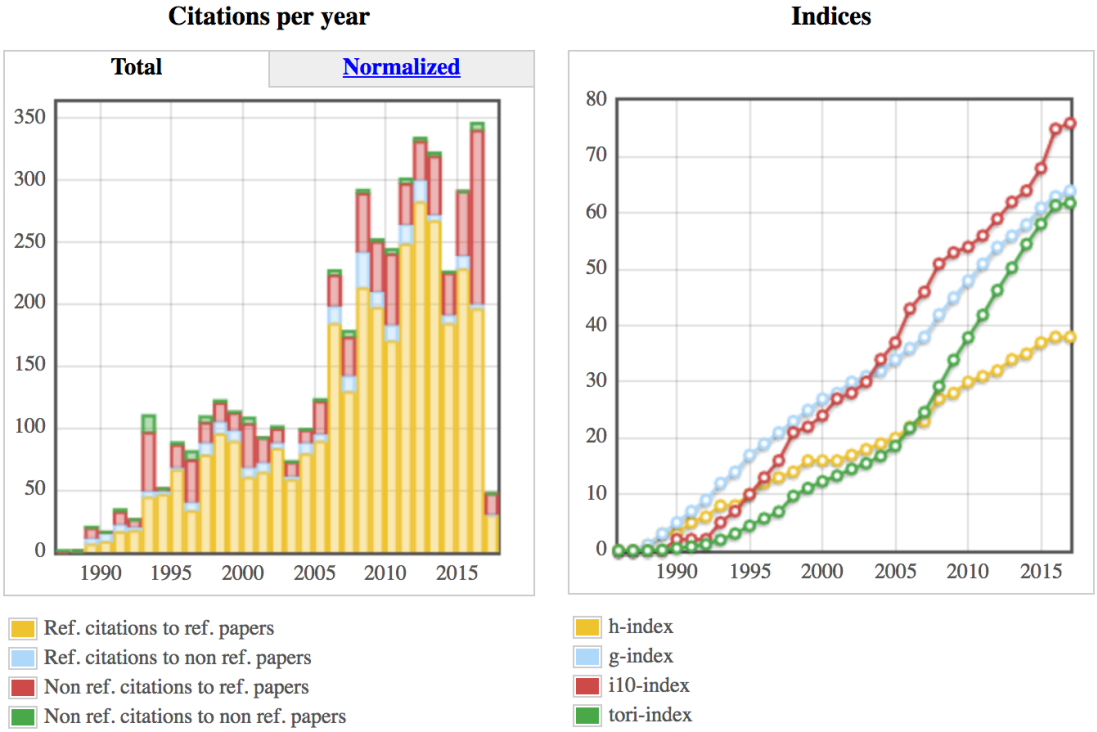

FIGURE 1 – Citations per year and indices of impact — Figure courtesy of ADS

Peer–reviewed Articles

1. Buchert T., Götz G. : 'A class of solutions for self–gravitating dust in Newtonian gravity', *J. Math. Phys.* **28**, 2714-2719 (1987).
2. Buchert T. : 'A class of solutions in Newtonian cosmology and the pancake theory', *Astron. Astrophys.* **223**, 9-24 (1989).
3. Mo H.J., Buchert T. : 'A statistical discriminator among galaxy samples of different large–scale topology and geometry',
Astron. Astrophys. **234**, 5-19 (1990).

4. Buchert T., Mo H.J. : 'Probing pencil beams in pancake models',
Astron. Astrophys. **249**, 307-311 (1991).

5. Buchert T., Bartelmann M. : 'High–spatial resolution in three dimensions : a challenge for large–scale structure formation models',
Astron. Astrophys. **251**, 389-392 (1991).

6. Bildhauer S., Buchert T. : 'The relation between peculiar–velocity and density parameter for a class of solutions in Newtonian cosmology',
Prog. Theor. Phys. **86**, 653-658 (1991).

7. Buchert T. : 'Lagrangian theory of gravitational instability of Friedmann–Lemaître cosmologies and the "Zel'dovich approximation" ',
M.N.R.A.S. **254**, 729-737 (1992).

8. Bildhauer S., Buchert T., Kasai M. : 'Solutions in Newtonian cosmology – the pancake theory with cosmological constant',
Astron. Astrophys. **263**, 23-29 (1992).

9. Blanchard A., Buchert T., Klaffl R. : 'Can the neutrino picture be revived ? – QSO constraints revisited',
Astron. Astrophys. **267**, 1-10 (1993).

10. Buchert T., Martínez V.J. : 'The two–point correlation function in pancake models and the fair sample hypothesis',
The Astrophysical Journal **411**, 485-500 (1993).

11. Buchert T. : 'Lagrangian perturbation theory – a key–model for large–scale structure',
Astron. Astrophys. **267**, L51-L54 (1993).

12. Weiss A.G., Buchert T. : 'High resolution simulation of deep pencilbeam surveys – analysis of quasi–periodicity',
Astron. Astrophys. **274**, 1-11 (1993).

13. Buchert T., Ehlers J. : 'Lagrangian theory of gravitational instability of Friedmann–Lemaître cosmologies – second–order approach : an improved model for nonlinear clustering',
M.N.R.A.S. **264**, 375-387 (1993).

14. Buchert T. : 'Lagrangian theory of gravitational instability of Friedmann–Lemaître cosmologies – a generic third–order model for nonlinear clustering',
M.N.R.A.S. **267**, 811-820 (1994).

15. Buchert T., Melott A.L., Weiss A.G. : 'Testing higher–order Lagrangian perturbation theory against numerical simulations – 1. Pancake models',
Astron. Astrophys. **288**, 349-364 (1994).

16. Mecke K.R., Buchert T., Wagner H. : 'Robust morphological measures for large–scale structure in the Universe',
Astron. Astrophys. **288**, 697-704 (1994).

17. Melott A.L., Buchert T., Weiss A.G. : 'Testing higher–order Lagrangian perturbation theory against numerical simulations – 2. Hierarchical models',
Astron. Astrophys. **293**, 641-651 (1995).

18. Weiss A.G., Gottlöber S., Buchert T. : 'Optimizing higher–order Lagrangian perturbation theory for Standard CDM and BSI models',
M.N.R.A.S. **278**, 953-964 (1996).

19. Buchert T., Ehlers J. : 'Averaging inhomogeneous Newtonian cosmologies',
Astron. Astrophys. **320**, 1-7 (1997).

20. Buchert T., Karakatsanis G., Klaffl R., Schiller P. : 'The performance of Lagrangian perturbation schemes at high resolution',
Astron. Astrophys. **318**, 1-10 (1997).

21. Susperregi M., Buchert T. : 'Cosmic density and velocity fields in Lagrangian perturbation theory',
Astron. Astrophys. **323**, 295-304 (1997).

22. Karakatsanis G., Buchert T., Melott A.L. : 'Temporal optimization of Lagrangian perturbation schemes',
Astron. Astrophys. **326**, 873-884 (1997).

23. Kerscher M., Schmalzing J., Retzlaff J., Borgani S., Buchert T., Gottlöber S., Müller V., Plionis M., Wagner H. : 'Minkowski–Functionals of Abell / ACO clusters',
M.N.R.A.S. **284**, 73-84 (1997).

24. Ehlers J., Buchert T. : 'Newtonian cosmology in Lagrangian formulation : foundations and perturbation theory',
Gen. Rel. Grav. **29**, 733-764 (1997).

25. Schmalzing J., Buchert T. : 'Beyond genus statistics : a unifying approach to the morphology of cosmic structure',
The Astrophysical Journal **482**, L1-L4 (1997).

26. Kerscher M., Schmalzing J., Buchert T., Wagner H. : 'Fluctuations in the IRAS 1.2 Jy catalogue',
Astron. Astrophys. **333**, 1-12 (1998).

27. Buchert T., Domínguez A. : 'Modeling multi–stream flow in collisionless matter : approximations for large–scale structure beyond shell–crossing',
Astron. Astrophys. **335**, 395-402 (1998).

28. Buchert T., Domínguez A., Pérez–Mercader J. : 'Extending the scope of models for large–scale structure formation in the Universe',
Astron. Astrophys. **349**, 343-353 (1999).

29. Kerscher M., Pons–Borderia M.–J., Schmalzing J., Trasarti–Battistoni R., Buchert T., Martínez V.J., Valdarnini R. : 'A global descriptor of spatial pattern interaction in the galaxy distribution',
The Astrophysical Journal **513**, 543-548 (1999).

30. Fritsch C., Buchert T. : 'The fundamental plane of clusters of galaxies : a quest for understanding cluster dynamics and morphology',
Astron. Astrophys. **344**, 749-754 (1999).

31. Adler S., Buchert T. : 'Lagrangian theory of structure formation in pressure–supported cosmological fluids',
Astron. Astrophys. **343**, 317-324 (1999).

32. Schmalzing J., Buchert T., Melott A.L., Sahni V., Sathyaprakash B.S., Shandarin S.F. : 'Disentangling the cosmic web I : morphology of isodensity contours',
The Astrophysical Journal **526**, 568-578 (1999).

33. Buchert T. : 'On average properties of inhomogeneous fluids in general relativity I : dust cosmologies',
Gen. Rel. Grav. **32**, 105-125 (2000).

34. Buchert T., Kerscher M., Sicka C. : 'Backreaction of inhomogeneities on the expansion : the evolution of cosmological parameters',
Phys. Rev. D **62**, 043525-1-21 (2000).

35. Beisbart C., Buchert T., Wagner H. : 'Morphometry of spatial patterns',
Physica A **293**, 592-604 (2001).

36. Kerscher M., Mecke K.R., Schmalzing J., Beisbart C., Buchert T., Wagner H. : 'Morphological fluctuations of large–scale structure : the PSCz survey',
Astron. Astrophys. **373**, 1-11 (2001).

37. Buchert T. : 'On average properties of inhomogeneous fluids in general relativity II : perfect fluid cosmologies',
Gen. Rel. Grav. **33**, 1381-1405 (2001).

38. Kerscher M., Buchert T., Futamase T. : 'On the abundance of collapsed objects',
The Astrophysical Journal **558**, L79-L82 (2001).

39. Beisbart C., Valdarnini R., Buchert T. : 'The morphological and dynamical evolution of simulated galaxy clusters',
Astron. Astrophys. **379**, 412-425 (2001).

40. Buchert T., Carfora M. : 'Regional averaging and scaling in relativistic cosmology',
Class. Quant. Grav. **19**, 6109-6145 (2002).

41. Buchert T., Carfora M. : 'Cosmological parameters are dressed',
Phys. Rev. Lett. **90**, 31101 (2003).

42. Hikage C., Schmalzing J., Buchert T., Suto Y., Kayo I., Taruya A., Vogeley M.S., Hoyle F., Gott III J.R., Brinkmann J. : 'Minkowski Functionals of SDSS galaxies I : Analysis of Excursion Sets',
PASJ **55**, 911-931 (2003).

43. Yano T., Koyama H., Buchert T., Gouda N., 'Universality in the distribution of caustics in the expanding Universe',
The Astrophysical Journal Suppl. **151**, 185-192 (2004).

44. Hosoya A., Buchert T., Morita M. : 'Information entropy in cosmology',
Phys. Rev. Lett. **92**, 141302-1-4 (2004).

45. Buchert T., Domínguez A. : 'Adhesive gravitational clustering',
Astron. Astrophys. **438**, 443-460 (2005).

46. Ellis G.F.R., Buchert T. : 'The universe seen at different scales',
Phys. Lett. A (Einstein Special Issue) **347**, 38-46 (2005).

47. Buchert T. : 'A cosmic equation of state for the inhomogeneous Universe : can a global far–from–equilibrium state explain Dark Energy ?',
Class. Quant. Grav. **22**, L113-L119 (2005).

48. Buchert T. : 'On globally static and stationary cosmologies with or without a cosmological constant and the Dark Energy problem',
Class. Quant. Grav. **23**, 817-844 (2006).

49. Buchert T. : 'An exact Lagrangian integral for the Newtonian gravitational field strength',
Phys. Lett. A **354**, 8–14 (2006).

50. Buchert T. : 'The non–perturbative regime of cosmic structure formation',
Astron. Astrophys. **454**, 415–422 (2006).

51. Buchert T., Larena J., Alimi J.–M. : 'Correspondence between kinematical backreaction and scalar field cosmologies – the 'morphon field'',
Class. Quant. Grav. **23**, 6379–6408 (2006).

52. Buchert T. : 'Dark Energy from Structure – a status report' ; invited review.
Gen. Rel. Grav. (Dark Energy special issue) **40**, 467–527 (2008).

53. Buchert T., Carfora M. : 'On the curvature of the present–day Universe',
Class. Quant. Grav. **25**, 195001 (2008).

54. Larena J., Alimi J.M., Buchert T., Kunz M., Corasaniti P.S. : 'Testing backreaction effects with observations',
Phys. Rev. D **79**, 083011 (2009).

55. Buchert T., Ellis G.F.R., v. Elst H. : 'Geometrical order–of–magnitude estimates for spatial curvature in realistic models of the Universe'.
Gen. Rel. Grav. (Special issue in memoriam Jürgen Ehlers) **41**, 2017–2030 (2009).

56. Ehlers J., Buchert T. : 'On the Newtonian limit of the Weyl tensor'.
Gen. Rel. Grav. (Special issue in memoriam Jürgen Ehlers) **41**, 2153–2158 (2009).

57. Roy X., Buchert T. : 'Chaplygin gas and effective description of inhomogeneous universe models in general relativity'.
Class. Quant. Grav. **27**, 175013 (2010).

58. Wiegand A., Buchert T. : 'Multiscale cosmology and structure–emerging Dark Energy : a plausibility analysis'.
Phys. Rev. D **82**, 023523 (2010).

59. Buchert T., Obadia N. : 'Effective Inhomogeneous Inflation : curvature inhomogeneities of the Einstein vacuum'.
Class. Quant. Grav. F.T.C. **28**, 162002 (2011).

60. Roy X., Buchert T., Carloni S., Obadia N. : 'Global gravitational instability of FLRW backgrounds — interpreting the dark sectors'.
Class. Quant. Grav. **28**, 165004 (2011).

61. Buchert T. : 'Toward physical cosmology : focus on inhomogeneous geometry and its non–perturbative effects' ; invited review.
Class. Quant. Grav. (Focus section on 'inhomogeneous cosmological models and averaging in cosmology') **28**, 164007 (2011).

62. Roy X., Buchert T. : 'Relativistic cosmological perturbation scheme on a general background : scalar perturbations for irrotational dust'.
Class. Quant. Grav. **29**, 115004 (2012).

63. Rampf C., Buchert T. : 'Lagrangian perturbations and the matter bispectrum I : fourth-order model for nonlinear clustering'.
J.C.A.P. **06**, 021 (2012).

64. Buchert T., Ostermann M. : 'Lagrangian theory of structure formation in relativistic cosmology I : Lagrangian framework and definition of a nonperturbative approximation'.
Phys. Rev. D **86**, 023520 (2012).

65. Li N., Buchert T., Hosoya A., Morita M., Schwarz D.J. : 'Relative information entropy and Weyl curvature of the inhomogeneous Universe'.
Phys. Rev. D **86**, 083539 (2012).

66. Buchert T., Räsänen S. : 'Backreaction in late–time cosmology' ; invited review.
Ann. Rev. Nucl. Part. Sci. **62**, 57–79 (2012).

67. Roukema B.F., Ostrowski J.J., Buchert T. : 'Virialization–induced curvature as a physical explanation for dark energy'.
J.C.A.P. **10**, 043 (2013).

68. Buchert T., Nayet C., Wiegand A. : 'Lagrangian theory of structure formation in relativistic cosmology II : average properties of a generic evolution model'.
Phys. Rev. D **87**, 123503 (2013).

69. Roukema B.F., France M.J., Kazimierczak T.A., Buchert T. : 'Deep redshift topological lensing : strategies for the T^3 candidate'.
Mon. Not. Roy. Astron. Soc. **437**, 1096–1108 (2014).

70. Wiegand A., Buchert T., Ostermann M. : 'Direct Minkowski Functional analysis of large redshift surveys : a new high–speed code tested on the luminous red galaxy Sloan Digital Sky Survey–DR7 catalogue'.
Mon. Not. Roy. Astron. Soc. **443**, 241–259 (2014).

71. Roukema B.F., Buchert T., Ostrowski J.J., France M.J. : 'Evidence for an environment–dependent shift in the baryon acoustic oscillation peak'.
Mon. Not. Roy. Astron. Soc. **448**, 1660–1673 (2015).

72. Alles A., Buchert T., Al Roumi F., Wiegand A. :
'Lagrangian theory of structure formation in relativistic cosmology III : gravitoelectric perturbation and solution schemes at any order'.
Phys. Rev. D **92**, 023512 (2015).

73. Buchert T., Carfora M., Ellis G.F.R., Kolb E.W., MacCallum M.A.H., Ostrowski J.J., Räsänen S., Roukema B.F., Andersson L., Coley A.A., Wiltshire D.L. : 'Is there proof that backreaction of inhomogeneities is irrelevant in cosmology ?'.
Class. Quant. Grav. **32**, 215021 (2015).

74. Roukema B.F., Buchert T., Fujii H., Ostrowski J.J. : 'Is the baryon acoustic oscillation peak a cosmological standard ruler ?'.
Mon. Not. Roy. Astron. Soc. Letters **456**, L45–L48 (2016).

75. Buchert T., Coley A.A., Kleinert H., Roukema B.F., Wiltshire D.L. : Observational challenges for the standard FLRW model' ; invited review.
Int. J. of Mod. Phys. D **25**, 1630007 (2016).

76. Buchert T., France M.J., Steiner F. : 'Model–independent analyses of non–Gaussianity in Planck CMB maps using Minkowski Functionals' ; invited article.
Class. Quant. Grav. (Focus section on 'Planck and fundamentals of cosmology'), *in press* (2017).

77. Roukema B.F., Mourier P., Buchert T., Ostrowski J.J. : The background Friedmannian Hubble constant in relativistic inhomogeneous cosmology and the age of the Universe'.
Astron. Astrophys., *in press* (2017).

Invited Papers and Workshop Contributions

1. Buchert T. : 'Analytical models for large–scale structure in the Universe', in : IAP Workshop, Paris (France) *The World of Galaxies*, H.G. Corwin, L. Bottinelli (eds.), 473-476 (1989).

2. Buchert T. : 'Lighting up pancakes – Towards a theory of galaxy formation', Astronomical Society, 'Highlight-talk', Graz (Austria),
Rev. Mod. Astron. **2**, 267-281 (1989).

3. Buchert T., Mo H.J. : 'Statistical discriminators of large–scale structure', in : *Progress report on cosmology and gravitational lensing*, Ringberg, Tegernsee (Germany), Proceedings MPA/P3, G. Börner, T. Buchert, P. Schneider (eds.), 17-23 (1989).

4. Buchert T., Schiller P. : 'The peculiar–velocity field in pancake models', in : *Progress report on cosmology and gravitational lensing*, Proceedings MPA/P3, Ringberg, Tegernsee (Germany), G. Börner, T. Buchert, P. Schneider (eds.), 158-162 (1989).

5. Klaffl R., Buchert T., Einasto J. Kates R., Saar E. : 'Cosmography of the Virgo, Coma and Perseus superclusters', in : *Progress report on cosmology and gravitational lensing*, Proceedings MPA/P3, Ringberg, Tegernsee (Germany), G. Börner, T. Buchert, P. Schneider (eds.), 144 (a movie) (1989).

6. Buchert T. : 'Lighting up pancakes – Towards a theory of galaxy formation', in : *Progress report on cosmology and gravitational lensing*, Proceedings MPA/P3, Ringberg, Tegernsee (Germany), G. Börner, T. Buchert, P. Schneider (eds.), 1-16 (1989).

7. Buchert T., Klaffl R. : 'Illustrations of two– and three–dimensional pancaking', in : *Dark Matter in the Universe*, Erice (Italy), P. Galeotti, D.N. Schramm (eds.), Kluwer Acad. Pub., 93-98 (1990).
8. Buchert T., Klaffl R. : 'Illustrations of two- and three-dimensional pancaking', in : *Dark Matter in the Universe*, Third Nishinomiya–Yukawa Memorial Symposium, Nishinomiya 1988 (Japan), H. Sato, H. Kodama (eds.), Springer Berlin, N.Y. NATO Advanced Science Institutes, ASI Series C, Volume 296, 93 (1990).
9. Buchert T. : 'High–spatial resolution of pancakes', IAU Workshop Tenerife (Spain), *Astrophys. Sp. Sci.* **171**, 135-139 (1990).
10. Buchert T. : 'Galaxy formation in pancake models', IAU Workshop Tenerife (Spain), *Astrophys. Sp. Sci.* **171**, 141-145 (1990).
11. Buchert T., Klaffl R. : 'Three–dimensional realizations of dynamically thresholded pancake models', in : Rencontres de Blois (France) *Physical Cosmology*, A. Blanchard et al. (eds.), Frontières Paris, 591-594 (1991).
12. Buchert T. : 'Dynamical thresholding of pancake models : 1. Dynamical thresholding; 2. The two–point correlation function; 3. Large 2D realizations and subsampling', in : Rencontres de Blois (France) *Physical Cosmology*, A. Blanchard et al. (eds.), Frontières Paris, 475-483 (1991).
13. Buchert T. : 'Dynamical thresholding of pancake models : A promising variant of the HDM picture', in : Proc. 3rd MPG–CAS Workshop on *High Energy Astrophysics – Compact Stars and Active Galaxies*, Huangshan (PR China), ed. : Li Qibin, World Scientific, Singapore, 242-252 (1991).
14. Buchert T., Bartelmann M. : 'High–spatial resolution of pancakes in 3D', in : 2nd. DAEC meeting Meudon (France) *Distribution of Matter in the Universe*, G. Mamon, D. Gerbal (eds.), Meudon : Observatoire de Paris, 277-280 (1992).
15. Buchert T. : 'Vorticity in pancake models', in : 2nd. DAEC meeting Meudon (France) *Distribution of Matter in the Universe*, G. Mamon, D. Gerbal (eds.), Meudon : Observatoire de Paris, 281-286 (1992).
16. Buchert T., Martínez V.J. : 'What is a fair sample ?', in : *Observational Cosmology*, Chincarini G. et al. (eds.), ASP Conference Series Vol. **51**, 72-73 (1993).
17. Buchert T., Weiss A.G. : 'Third–order Lagrangian perturbation theory – realization at high–spatial resolution', in : 9th IAP conference Paris (France) *Cosmic Velocity Fields*, F. Bouchet, M. Lachièze–Rey (eds.), Frontières Paris, 517-519 (1993).
18. Buchert T. : 'Higher–order Lagrangian perturbation theory', in : Proceedings *4th MPG–CAS Workshop on High–energy astrophysics and Cosmology*, Ringberg, Tegernsee (Germany), Proceedings MPA/P8, G. Börner, T. Buchert (eds.), 204-214 (1993).
19. Weiss A.G., Buchert T. : 'High–resolution simulation of deep pencil beam surveys', in : Proceedings *4th MPG–CAS Workshop on High–energy astrophysics and Cosmology*, Ringberg, Tegernsee (Germany), Proceedings MPA/P8, G. Börner, T. Buchert (eds.), 310-318 (1993).

20. Buchert T. : 'Cosmogony of generic structures', in : *Galaxy formation and large–scale structure of the Universe – The coming decade*, Nandaihe (PR China), Z.-L. Zou, Y. Chen, P.-W. Ji (eds.), *Astrophysics Reports* **1**, Pub. Beijing Astron. Obs., 59-70 (1995).

21. Platzöder M., Buchert T. : 'Application of Minkowski functionals to the statistical analysis of dark matter models', in : *1st SFB workshop on Astro–particle physics*, Report SFB/P001, Ringberg, Tegernsee, (Germany), A. Weiss, G. Raffelt, W. Hillebrandt, F.v. Feilitzsch (eds.), 251-263 (1995).

22. Buchert T. : 'Robust morphological measures for large–scale structure', in : *11th Potsdam Cosmology Workshop on Large–scale Structure in the Universe*, Geltow (Germany), J. Mücket, S. Gottlöber, V. Müller (eds.), World Scientific, 156-161 (1995).

23. Buchert T., Melott A.L., Weiss A.G. : 'Optimized Lagrangian approximations for modelling large–scale structure at nonlinear stages', in : *11th Potsdam Cosmology Workshop on Large–scale Structure in the Universe*, Geltow (Germany), J. Mücket, S. Gottlöber, V. Müller (eds.), World Scientific, 364-368 (1995).

24. Buchert T. : 'Averaging hypotheses in Newtonian cosmology', in : *Mapping, Measuring and Modelling the Universe*, València (Spain) 1995, P. Coles, V.J. Martínez, M.J. Pons (eds.), ASP Conference Series 94, 349-356 (1996).

25. Weiss A.G., Gottlöber S., Buchert T. : 'Optimizing higher–order Lagrangian perturbation theory for Cold Dark Matter models', in : *Mapping, Measuring and Modelling the Universe*, València (Spain) 1995, P. Coles, V.J. Martínez, M.J. Pons (eds.), ASP Conference Series 94, 13-18 (1996).

26. Kerscher M., Schmalzing J., Buchert T. : 'Analyzing galaxy catalogues with Minkowski Functionals', in : *Mapping, Measuring and Modelling the Universe*, València (Spain) 1995, P. Coles, V.J. Martínez, M.J. Pons (eds.), ASP Conference Series 94, 247-252 (1996).

27. Buchert T. : 'Lagrangian perturbation approach to the formation of large–scale structure', in : *Proc. International School Enrico Fermi, Course CXXXII (Dark Matter in the Universe)*, Varenna (Italy), S. Bonometto, J.R. Primack, A. Provenzale (eds.), IOS Press Amsterdam, 543-564 (1996).

28. Schmalzing J., Kerscher M., Buchert T. : 'Minkowski functionals in cosmology', in : *Proc. International School Enrico Fermi, Course CXXXII (Dark Matter in the Universe)*, Varenna (Italy), S. Bonometto, J.R. Primack, A. Provenzale (eds.), IOS Press Amsterdam, 281-291 (1996).

29. Buchert T. : 'Lagrangian cosmogonies for the modeling of large–scale structure', in : *SFB workshop on Astro–particle physics*, ESO Report, Ringberg, Tegernsee (Germany) 1995, A. Weiss, G. Raffelt, W. Hillebrandt, F.v. Feilitzsch, T. Buchert (eds.), 356-358 (1996).

30. Ellis G.F.R., Börner G., Buchert T., Ehlers J., Hogan C.J., Kirshner R.P., Press W.H., Raffelt G., Thielemann F.–K., Van den Bergh S. : 'What do we really know about the global properties of the Universe', in : Dahlem Workshop Report ES19 *The Evolution of the Universe*, Berlin (Germany) 1995, G. Börner, S. Gottlöber (eds.), Chichester : Wiley, 51-78 (1997).

31. Buchert T. : 'Averaging inhomogeneous cosmologies : a dialogue', in : *2nd SFB workshop on Astro–particle physics*, Report SFB/P002, Ringberg, Tegernsee (Germany) 1996, R. Bender, T. Buchert, P. Schneider, F.v. Feilitzsch (eds.), 71-82 (1997).
32. Kerscher M., Schmalzing J., Buchert T., Wagner H. : 'The significance of the fluctuations in the IRAS 1.2 Jy catalogue', in : *2nd SFB workshop on Astro–particle physics*, Report SFB/P002, Ringberg, Tegernsee (Germany) 1996, R. Bender, T. Buchert, P. Schneider, F.v. Feilitzsch (eds.), 83-98 (1997).
33. Buchert T. : 'A fresh look at the adhesion approximation', in : *12th Potsdam Cosmology Workshop on Large–scale Structure in the Universe*, Potsdam (Germany) 1997, V. Müller, S. Gottlöber, J.P. Mücket, J. Wambsganss (eds.), World Scientific, 295-296 (1998).
34. Beisbart C., Buchert T. : 'Characterizing cluster morphology using vector–valued Minkowski functionals', in : *12th Potsdam Cosmology Workshop on Large–scale Structure in the Universe*, Potsdam (Germany) 1997, V. Müller, S. Gottlöber, J.P. Mücket, J. Wambsganss (eds.), World Scientific, 197-200 (1998).
35. Buchert T. : 'Stabilization of large–scale structure by adhesive gravitational clustering', in : *From Stars to the Universe*, Shanghai (PR China) 1998, Annals of Shanghai Observatory (1998).
36. Sicka C., Buchert T., Kerscher M. : 'Backreaction in cosmological models' in : *5th SFB 375 Ringberg workshop*, Ringberg (Tegernsee, Germany) 1998, D. Thomas (ed.), 75-79 (1999).
37. Beisbart C., Buchert T. : 'Pressure–supported cosmic structure formation : analytical schemes beyond the adhesion approximation', in : *5th SFB 375 Ringberg workshop*, Ringberg (Tegernsee, Germany) 1998, D. Thomas (ed.), 81-84 (1999).
38. Buchert T. : 'On average properties of inhomogeneous cosmologies', in : *9th JGRG Meeting*, Hiroshima 1999, Y. Eriguchi et al. (eds.), 306-321 (2000).
39. Kerscher M., Buchert T., Sicka C. : 'Backreaction and the evolution of cosmological parameters', in : *Sixth SFB-375 Ringberg workshop*, Ringberg (Tegernsee, Germany) 1999, J. Reingruber (ed.), 45-47 (2000).
40. Domínguez A., Beisbart C., Buchert T., Kerscher M., Schmalzing J., Wagner H. : 'Morphology of the large–scale structure', in : *Proceedings of the 4th MPG–CAS workshop 'Cosmology in the New Millennium'*, Shanghai 2001, *Prog. in Astron. (Suppl.)* **19**, 32-36 (2001).
41. Buchert T., Carfora M. : 'Matter seen at many scales and the geometry of averaging in relativistic cosmology', in : *General Relativity, Cosmology, and Gravitational Lensing*, Marmo G., Rubano C., Scudellaro P. (eds.), Napoli Series on Physics and Astrophysics, Bibliopolis, Naples, 29-44 (2002).
42. Buchert T., Carfora M. : 'The cosmic quartet : cosmological parameters of a smoothed inhomogeneous spacetime', in : *12th JRGR Meeting*, Tokyo 2002, M. Shibata et al. (eds.), 157-161 (2003).
43. Yano T., Koyama H., Buchert T., Gouda N. : 'Universality in the distribution of caustics', in : *Annual Report of the National Astronomical Observatory of Japan*, Vol. 6 , K. Tanikawa et al. (eds.), NAO, Osawa, Mitaka-shi, Tokyo, Japan, p.13 (2005).

44. Larena J., Buchert T., Alimi J.-M. : 'Reinterpreting quintessential dark energy through averaged inhomogeneous cosmologies', in : *Proceedings of the SF2A conference*, Paris, France, D. Barret et al. (eds.), 281-284 (2006).

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