

TOTAL LIST OF PUBLICATIONS

Peer Reviewed Publications

- [P34] “*Galaxy number-count dipole and superhorizon fluctuations*”
Guillem Domènech, Roya Mohayaee, Subodh P. Patil & Subir Sarkar.
arXiv:2207.01569. **JCAP 10 (2022) 019**
- [P33] “*Induced gravitational waves from slow-roll inflation after an enhancing phase*”
Shyam Balaji, Guillem Domènech & Joseph Silk.
arXiv:2205.01696. **JCAP 09 (2022) 016**
- [P32] “*Gravitational waves from dark matter isocurvature*”
Guillem Domènech, Samuel Passaglia & Sébastien Renaux-Petel.
arXiv:2112.10163. **JCAP 03 (2022) 03, 023**
- [P31] “*Expansion history-dependent oscillations in the scalar-induced gravitational wave background*”
Lukas T. Witkowski, Guillem Domènech, Jacopo Fumagalli & Sébastien Renaux-Petel.
arXiv:2110.09480. **JCAP 05 (2022) 05, 028**
- [P30] “*Were recently reported MHz events planet mass primordial black hole mergers?*”
Guillem Domènech.
arXiv:2110.00550. **Eur. Phys. J. C 81, 1042 (2021)**.
- [P29] “*Scalar Induced Gravitational Waves Review*”
Guillem Domènech.
arXiv:2109.01398. **Universe 7 (2021) 11, 398**
- [P28] “*Exploring Evaporating Primordial Black Holes with Gravitational Waves*”
Guillem Domènech, Volodymyr Takhistov & Misao Sasaki.
arXiv:2105.06816. **Phys.Lett.B 823 (2021) 136722**
- [P27] “*Cosmology of strongly interacting fermions in the early universe*”
Guillem Domènech & Misao Sasaki.
arXiv:2104.05271. **JCAP 06 (2021) 030**
- [P26] “*Probing non-Gaussianities with the high frequency tail of induced gravitational waves*”
Vicente Atal & Guillem Domènech.
arXiv:2103.01056. **JCAP 06 (2021) 001**
- [P25] “*Approximate gauge independence of the induced gravitational wave spectrum*”
Guillem Domènech & Misao Sasaki.
arXiv:2012.14016. **Phys.Rev.D 103 (2021) 6, 063531**
- [P24] “*Gravitational wave constraints on the primordial black hole dominated early universe*”
Guillem Domènech, Chunshan Lin & Misao Sasaki.
arXiv:2012.08151. **JCAP 04 (2021) 062. JCAP 11 (2021) E01**
- [P23] “*NANOGrav Hints on Planet-Mass Primordial Black Holes*”
Guillem Domènech & Shi Pi.
arXiv:2010.03976. **Sci.China Phys.Mech.Astron. 65 (2022) 3, 230411**.
- [P22] “*Neutrino masses, vacuum stability and quantum gravity prediction for the mass of the top quark*”
Guillem Domènech, Mark Goodsell & Christof Wetterich.
arXiv:2008.04310. **JHEP01(2021)180**

- [P21] “*Induced gravitational waves as a probe of thermal history of the universe*”
Guillem Domènech, Shi Pi & Misao Sasaki.
arXiv:2005.12314. **JCAP 08 (2020) 017**
- [P20] “*Planck residuals anomaly as a fingerprint of alternative scenarios to inflation*”
Guillem Domènech, Xingang Chen, Abraham Loeb & Marc Kamionkowski.
arXiv:2005.08998. **JCAP10(2020)005**
- [P19] “*Induced gravitational waves in a general cosmological background*”
Guillem Domènech.
arXiv:1912.05583. **IJMPD Vol. 29, No. 03, 2050028 (2020)**
- [P18] “*Could the black hole singularity be a field singularity?*”
Guillem Domènech, Atsushi Naruko, Misao Sasaki & Christof Wetterich.
arXiv:1912.02845. **IJMPD Vol. 29, No. 03, 2050026 (2020)**
- [P17] “*Lensing anomaly and oscillations in the primordial power spectrum*”
Guillem Domènech & Marc Kamionkowski
arXiv:1905.04323. **JCAP11 (2019) 040**
- [P16] “*Mimicking features in alternatives to inflation with interacting spectator fields*”
Guillem Domènech, Javier Rubio & Julius Wons,
arXiv:1905.04323, **Phys.Lett. B790 (2019) 263-269**,
- [P15] “*Gravitational waves from global cosmic strings in quintessential inflation*”
Dario Bettoni, Guillem Domènech & Javier Rubio,
arXiv:1810.11117, **JCAP 1902 (2019) 034**,
- [P14] “*Vacuum birefringence and the Schwinger effect in (3+1) de Sitter*”
Mariona Banyeres, Guillem Domènech & Jaume Garriga,
arXiv:1809.08977, **Phys.Lett. B790 (2019) 263-269**,
- [P13] “*Vector disformal transformation of generalized Proca theory*”
Guillem Domènech, Shinji Mukohyama, Ryo Namba & Vassilis Papadopoulos,
arXiv:1807.06048, **Phys.Rev. D98 (2018) no.6, 064037**,
- [P12] “*Doppelgänger dark energy: modified gravity with non-universal couplings after GW170817*”
Luca Amendola, Dario Bettoni, Guillem Domènech & Adalto R. Gomes,
arXiv:1803.06368, **JCAP 1806 (2018) no.06, 029** ,
- [P11] “*Hamiltonian approach to second order gauge invariant cosmological perturbations*”
Guillem Domènech & Misao Sasaki,
arXiv:1709.09804, **Phys.Rev. D97 (2018) no.2, 023521**,
- [P10] “*Thermal activation of thin-shells in anti-de Sitter black hole spacetime*”
Pisin Chen, Guillem Domènech, Misao Sasaki & Dong-han Yeom,
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- [P9] “*CMB Scale Dependent Non-Gaussianity from Massive Gravity during Inflation*”
Guillem Domènech, Takashi Hiramatsu, Chunshan Lin, Misao Sasaki, Maresuke Shiraishi & Yi Wang,
arXiv:1701.05554, **JCAP 1705 (2017) no.05, 034**,
- [P8] “*Strongly scale-dependent CMB dipolar asymmetry from super-curvature fluctuations*”
Christian Byrnes, Guillem Domènech, Misao Sasaki & Tomo Takahashi,
arXiv:1610.02650, **JCAP 1612 (2016) no.12, 020**,

- [P7] “*Consistency relation and inflaton field redefinition in the delta N formalism*”
 Guillem Domenech, Jinn-Ouk Gong & Misao Sasaki,
 arXiv:1606.03343, **Phys.Lett. B769 (2017) 413-417**,
- [P6] “*Inflationary Magnetogenesis with Broken Local U(1) Symmetry*”
 Guillem Domènech, Chunshan Lin & Misao Sasaki,
 arXiv:1512.01108 , **EPL 115 (2016) no.1, 19001**,
- [P5] “*Stationary bubbles and their tunneling channels toward trivial geometry* ”
 Pisin Chen, Guillem Domènech, Misao Sasaki & Dong-han Yeom,
 arXiv:1512.00565, **JCAP 1604 (2016) no.04, 013**,
- [P4] “*Derivative-dependent metric transformation and physical degrees of freedom*”
 Guillem Domènech, Shinji Mukohyama, Ryo Namba, Atsushi Naruko, Rio Saitou & Yota Watanabe,
 arXiv:1507.05390 , **Phys.Rev. D92 (2015) no.8, 084027**,
- [P3] “*Cosmological disformal invariance*”
 Guillem Domènech, Atsushi Naruko & Misao Sasaki,
 arXiv:1505.00174 , **JCAP 1510 (2015) no.10, 067**,
- [P2] “*Conformal Frame Dependence of Inflation*”
 Guillem Domènech & Misao Sasaki,
 arXiv:1501.07699 , **JCAP 1504 (2015) no.04, 022) 134** ,
- [P1] “*Fixing a Rigorous Formalism for the Accurate Analytic Derivation of Halo Properties*”
 Enric Juan, Eduard Salvador-Solé, Guillem Domènech & Alberto Manrique,
 arXiv: 1401.7335 **Mon.Not.Roy.Astron.Soc. 439 (2014) no.1, 719-724**,
- [P0] “*Halo Mass Definition and Multiplicity Function*”
 Enric Juan, Eduard Salvador-Solé, Guillem Domènech & Alberto Manrique,
 arXiv: 1401.7334 **Mon.Not.Roy.Astron.Soc. 439 (2014) no.3, 3156-3167**,

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- [P34] “*A new universal property of cosmological gravitational wave anisotropies*”
 Ameet Malhotra, Ema Dimastrogiovanni, Guillem Domènech, Matteo Fasiello & Gianmassimo Tasinato.
 arXiv: 2212.10316.

Proceedings

- [C3] “*Inflationary Magnetogenesis with On-shell Local U(1) Symmetry*”
 Guillem Domènech, Chunshan Lin & Misao Sasaki,
J.Phys.Conf.Ser. 883 (2017) no.1, 012013
- [C2] “*Conformal frames in cosmology* ”
 Guillem Domènech & Misao Sasaki,
 arXiv:1602.06332, **Int.J.Mod.Phys. D25 (2016) no.13, 1645006**,
- [C1] “*Stationary bubbles: information loss paradox?*”
 Guillem Domènech & Misao Sasaki,
 arXiv:1602.04969, **Everything about Gravity, pp. 572-577 (2017)**.