

Publications

258 publications; 196 peer-reviewed publications; 62 conference proceedings (some of them refereed)

(from <https://ui.adsabs.harvard.edu/classic-form/>)

5 Selected Publications on structure formation and fundamental physics with 1700 total citations on NASA/ADS

[1–5]

Full list of publications

- [1] Matteo **Viel**, Julien Lesgourgues, Martin G. Haehnelt, Sabino Matarrese, and Antonio Riotto. Constraining warm dark matter candidates including sterile neutrinos and light gravitinos with WMAP and the Lyman- α forest. *PhRvD*, 71(6):063534, March 2005.
- [2] Matteo **Viel**, Julien Lesgourgues, Martin G. Haehnelt, Sabino Matarrese, and Antonio Riotto. Can Sterile Neutrinos Be Ruled Out as Warm Dark Matter Candidates? *Physical Review Letters*, 97(7):071301, August 2006.
- [3] Matteo **Viel**, George D. Becker, James S. Bolton, Martin G. Haehnelt, Michael Rauch, and Wallace L. W. Sargent. How Cold Is Cold Dark Matter? Small-Scales Constraints from the Flux Power Spectrum of the High-Redshift Lyman- α Forest. *Physical Review Letters*, 100(4):041304, February 2008.
- [4] Matteo **Viel**, Martin G. Haehnelt, and Volker Springel. The effect of neutrinos on the matter distribution as probed by the intergalactic medium. *JCAP*, 2010(6):015, June 2010.
- [5] Matteo **Viel**, George D. Becker, James S. Bolton, and Martin G. Haehnelt. Warm dark matter as a solution to the small scale crisis: New constraints from high redshift Lyman- α forest data. *PhRvD*, 88(4):043502, August 2013.
- [6] Marta Spinelli, Anna Zoldan, Gabriella De Lucia, Lizhi Xie, and Matteo **Viel**. The atomic hydrogen content of the post-reionization Universe. *MNRAS*, 493(4):5434–5455, April 2020.
- [7] Mario Ballardini, Riccardo Murgia, Marco Baldi, Fabio Finelli, and Matteo **Viel**. Non-linear damping of superimposed primordial oscillations on the matter power spectrum in galaxy surveys. *JCAP*, 2020(4):030, April 2020.
- [8] Francesca Lepori, Vid Iršič, Enea Di Dio, and Matteo **Viel**. The impact of relativistic effects on the 3D Quasar-Lyman- α cross-correlation. *JCAP*, 2020(4):006, April 2020.
- [9] Balakrishna S. Haridasu and Matteo **Viel**. Late-time decaying dark matter: constraints and implications for the H_0 -tension. *arXiv e-prints*, page arXiv:2004.07709, April 2020.
- [10] Anchal Saxena, Suman Majumdar, Mohd Kamran, and Matteo **Viel**. Impact of dark matter models on the EoR 21-cm signal bispectrum. *arXiv e-prints*, page arXiv:2004.04808, April 2020.

- [11] Tommaso Ronconi, Andrea Lapi, Matteo **Viel**, and Alberto Sartori. ScamPy – A sub-halo clustering and abundance matching based Python interface for painting galaxies on the dark matter halo/sub-halo hierarchy. *arXiv e-prints*, page arXiv:2002.07179, February 2020.
- [12] Square Kilometre Array Cosmology Science Working Group, David J. Bacon, Richard A. Battye, Philip Bull, Stefano Camera, Pedro G. Ferreira, Ian Harrison, David Parkinson, Alkistis Pourtsidou, Mário G. Santos, Laura Wolz, Filipe Abdalla, Yashar Akrami, David Alonso, Sambatra Andrianomena, Mario Ballardini, José Luis Bernal, Daniele Bertacca, Carlos A. P. Bengaly, Anna Bonaldi, Camille Bonvin, Michael L. Brown, Emma Chapman, Song Chen, Xuelei Chen, Steven Cunnington, Tamara M. Davis, Clive Dickinson, José Fonseca, Keith Grainge, Stuart Harper, Matt J. Jarvis, Roy Maartens, Natasha Maddox, Hamsa Padmanabhan, Jonathan R. Pritchard, Alvise Raccanelli, Marzia Rivi, Sambit Roychowdhury, Martin Sahlén, Dominik J. Schwarz, Thilo M. Siewert, Matteo **Viel**, Francisco Villaescusa-Navarro, Yidong Xu, Daisuke Yamauchi, and Joe Zuntz. Cosmology with Phase 1 of the Square Kilometre Array Red Book 2018: Technical specifications and performance forecasts. *Publications of the Astronomic Society of Australia*, 37:e007, January 2020.
- [13] Krishna Naidoo, Lorne Whiteway, Elena Massara, Davide Gualdi, Ofer Lahav, Matteo **Viel**, Héctor Gil-Marín, and Andreu Font-Ribera. Beyond two-point statistics: using the minimum spanning tree as a tool for cosmology. *MNRAS*, 491(2):1709–1726, January 2020.
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- [32] Isabella P. Carucci, Pier-Stefano Corasaniti, and Matteo **Viel**. Imprints of non-standard dark energy and dark matter models on the 21cm intensity map power spectrum. *JCAP*, 2017(12):018, December 2017.
- [33] R. Murgia, A. Merle, M. **Viel**, M. Totzauer, and A. Schneider. “Non-cold” dark matter at small scales: a general approach. *JCAP*, 2017(11):046, November 2017.

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