

Refereed Publications
MICHAEL BOYLAN-KOLCHIN

155. *Stress Testing Λ CDM with High-redshift Galaxy Candidates*
M. Boylan-Kolchin (2022), submitted to Nature; [arXiv:2208.01611](https://arxiv.org/abs/2208.01611)
154. *Dissipative Dark Matter on FIRE: II. Observational Signatures and Constraints from Local Dwarf Galaxies*
X. Shen, P. Hopkins, L. Necib, F. Jiang, **M. Boylan-Kolchin**, A. Wetzel (2022), submitted to MNRAS; [arXiv:2206.05327](https://arxiv.org/abs/2206.05327)
153. *The Hubble Space Telescope Survey of M31 Satellite Galaxies I. RR Lyrae-based Distances and Refined 3D Geometric Structure*
A. Savino & 20 co-authors, including **M. Boylan-Kolchin** (2022), submitted to ApJ; [arXiv:2206.02801](https://arxiv.org/abs/2206.02801)
152. *Formation of Proto-Globular Cluster Candidates in Cosmological Simulations of Dwarf Galaxies at $z > 4$*
O. Sameie, **M. Boylan-Kolchin**, P. Hopkins, A. Wetzel, X. Ma, J. Bullock, K. El-Badry, E. Quataert, J. Samuel, A. Schauer, D. Weisz (2022), submitted to MNRAS; [arXiv:2204.00638](https://arxiv.org/abs/2204.00638)
151. *Great Balls of FIRE I: The Formation of Star Clusters Across Cosmic Time in a Milky Way-mass Galaxy*
M. Grudić, Z. Hafen, C. Rodriguez, D. Guszejnov, A. Lamberts, A. Wetzel, **M. Boylan-Kolchin**, C. Faucher-Giguère (2022), submitted to MNRAS; [arXiv:2203.05732](https://arxiv.org/abs/2203.05732)
150. *FIRE-3: Updated Stellar Evolution Models, Yields, & Microphysics and Fitting Functions for Applications in Galaxy Simulations*
P. Hopkins, A. Wetzel, C. Wheeler, R. Sanderson, M. Grudić, O. Sameie, **M. Boylan-Kolchin**, M. Orr, X. Ma, C. Faucher-Giguère, D. Kereš, E. Quataert, K. Su, J. Moreno, R. Feldmann, J. Bullock, S. Loebmann, D. Anglés-Alcázar, J. Stern, L. Necib, C. Hayward (2022), submitted to MNRAS; [arXiv:2203.00040](https://arxiv.org/abs/2203.00040)
149. *Public Data Release of the FIRE-2 Cosmological Zoom-in Simulations of Galaxy Formation* A. Wetzel, C. Hayward, R. Sanderson, X. Ma, D. Anglés-Alcázar, R. Feldmann, T. Chan, K. El-Badry, C. Wheeler, S. Garrison-Kimmel, F. Nikakhtar, N. Panithanpaisal, A. Arora, A. Gurvic, J. Samuel, O. Sameie, V. Pandya, C. Hummels, S. Loebman, **M. Boylan-Kolchin**, J. Bullock, C. Faucher-Giguère, D. Kereš, E. Quataert, P. Hopkins (2022), submitted to AAS Journals; [arXiv:2202.06969](https://arxiv.org/abs/2202.06969)
148. *Shapes of Milky-Way-Mass Galaxies with Self-Interacting Dark Matter*
D. Vargya, R. Sanderson, O. Sameie, **M. Boylan-Kolchin**, P. Hopkins, A. Wetzel, A. Graus (2021), accepted by MNRAS; [arXiv:2104.14069](https://arxiv.org/abs/2104.14069)
147. *On the Probability of the Extremely Lensed $z = 6.2$ Earendel Source Being a Population III Star*
A. Schauer, V. Bromm, N. Drory, **M. Boylan-Kolchin** (2022), *ApJ Letters*, **934**, L6
146. *Extinguishing the FIRE: Environmental Quenching of Satellite Galaxies around Milky Way-mass Hosts in Simulations*
J. Samuel, A. Wetzel, I. Santistevan, E. Tollerud, J. Moreno, **M. Boylan-Kolchin**, J. Bailin, B. Padasani (2022), *MNRAS*, **514**, 5276
145. *Hot-mode Accretion and the Physics of Thin-disk Galaxy Formation*
Z. Hafen, J. Stern, J. Bullock, A. Gurvich, S. Yu, C. Faucher-Giguère, D. Fielding, D. Anglés-Alcázar, E. Quataert, A. Wetzel, T. Starkeburg, **M. Boylan-Kolchin**, J. Moreno, R. Feldmann, K. El-Badry, T. Chan, C. Trapp, D. Kereš, P. Hopkins (2022) *MNRAS*, **514**, 5056

144. *Sizing from the Smallest Scales: The Mass of the Milky Way*
M. Rodriguez Wimberly, M. Cooper, D. Baxter, **M. Boylan-Kolchin**, J. Bullock, S. Fillingham, A. Ji, L. Sales, J. Simon (2022), [MNRAS](#), **513**, 4968
143. *The In-situ Origins of Dwarf Stellar Outskirts in FIRE-2*
E. Kado-Fong, R. Sanderson, J. Greene, E. Cunningham, C. Wheeler, T. K. Chan, K. El-Badry, P. Hopkins, A. Wetzel, **M. Boylan-Kolchin**, C. Faucher-Giguère, S. Huang, E. Quataert, T. Starkeburg (2022), [ApJ](#), **931**, 152
142. *The Effects of LMC-mass Environments on Their Dwarf Satellite Galaxies in the FIRE Simulations*
E. Jahn, L. Sales, A. Wetzel, J. Samuel, K. El-Badry, **M. Boylan-Kolchin**, J. Bullock (2022), [MNRAS](#), **513**, 2673
141. *Amplified J-factors in the Galactic Center for Velocity-dependent Dark Matter Annihilation in FIRE Simulations*
D. McKeown, J. Bullock, F. Mercado, Z. Hafen, **M. Boylan-Kolchin**, A. Wetzel, L. Necib, P. Hopkins S. Yu (2022), [MNRAS](#), **513**, 55
140. *The Galaxy-Halo Size Relation of Low-mass Galaxies in FIRE*
E. Rohr, R. Feldmann, J. Bullock, O. Çatmabacak, **M. Boylan-Kolchin**, C. Faucher-Giguère, D. Kereš, L. Liang, J. Moreno, A. Wetzel (2022), [MNRAS](#), **510**, 3967
139. *Galaxies Lacking Dark Matter Produced By Close Encounters in a Cosmological Simulation*
J. Moreno, S. Danieli, J. Bullock, R. Feldmann, P. Hopkins, O. Çatmabacak, A. Gurvich, A. Lazar, C. Klein, C. Hummels, Z. Hafen, F. Mercado, S. Yu, F. Jang, C. Wheeler, A. Wetzel, D. Anglés-Alcázar, **M. Boylan-Kolchin**, E. Quataert, C. Faucher-Giguère, D. Kereš (2022), [Nature Astronomy](#), **6**, 496
138. *Metallicity Distribution Function of the Eridanus II Ultra-Faint Dwarf Galaxy from Hubble Space Telescope Narrow-band Imaging*
S. Fu, D. Weisz, E. Starkeburg, N. Martin, A. Ji, E. Patel, **M. Boylan-Kolchin**, P. Côté, A. Dolphin, N. Longeard, M. Mateo, N. Sandford (2022), [ApJ](#), **925**, 6
137. *Planes of Satellites Are Not a Problem for (Just) Λ CDM*
M. Boylan-Kolchin (2021), [Nature Astronomy](#), **5**, 1188
136. *From EMBER to FIRE: Predicting High Resolution Baryon Fields from Dark Matter Simulations with Deep Learning*
M. Bernardini, R. Feldmann, D. Anglés-Alcázar, **M. Boylan-Kolchin**, J. Bullock, L. Mayer, J. Stadel (2022), [MNRAS](#), **509**, 1323
135. *Globular Clusters and Streaming Velocities: Testing the New Formation Channel in High-resolution Cosmological Simulations*
A. Schauer, V. Bromm, **M. Boylan-Kolchin**, S. Glover, R. Klessen (2021), [ApJ](#), **922**, 193
134. *The Central Densities of Milky Way-mass Galaxies in Cold and Self-Interacting Dark Matter Models*
O. Sameie, **M. Boylan-Kolchin**, R. Sanderson, D. Vargya, P. Hopkins, A. Wetzel, J. Bullock, A. Graus, V. Robles (2021), [MNRAS](#), **507**, 720
133. *Dissipative Dark Matter on FIRE: I. Structural and Kinematic Properties of Dwarf Galaxies*
X. Shen, P. Hopkins, L. Necib, F. Jiang, **M. Boylan-Kolchin**, A. Wetzel (2021), [MNRAS](#), **506**, 4421
132. *A Model for the Formation of Stellar Associations and Clusters from Giant Molecular Clouds*
M. Grudić, J. Diederik Kruijssen, C. Faucher-Giguère, P. Hopkins, X. Ma, E. Quataert, **M. Boylan-Kolchin** (2021), [MNRAS](#); [MNRAS](#), **506**, 3239

131. *HETDEX [OIII] Emitters I: A spectroscopically selected low-redshift population of low-mass, low-metallicity galaxies*
B. Indahl, G. Zeimann, G. Hill, W. Bowman, R. Ciardullo, N. Drory, E. Gawiser, U. Hopp, S. Janowiecki, **M. Boylan-Kolchin**, E. Cooper, D. Davis, D. Farrow, S. Finkelstein, C. Gronwall, A. Kelz, K. McQuinn, D. Schneider, S. Tuttle (2021), [ApJ](#), **916**, 11
130. *Uncertain Times: The Redshift–Time Relation from Cosmology and Stars*
M. Boylan-Kolchin, D. Weisz (2021), [MNRAS](#), **505**, 2764
129. *The Contribution of Globular Clusters to Cosmic Reionization*
X. Ma, E. Quataert, A. Wetzel, C. Faucher-Giguère, **M. Boylan-Kolchin** (2021), [MNRAS](#), **504**, 4062
128. *Planes of Satellites Around Milky Way/M31-Mass Galaxies in the FIRE Simulations and Comparisons with the Local Group*
J. Samuel, A. Wetzel, S. Chapman, E. Tollerud, P. Hopkins, **M. Boylan-Kolchin**, J. Bailin, C. Faucher-Giguère (2021), [MNRAS](#), **504**, 1379
127. *Out of Sight, Out of Mind? The Impact of Correlated Clustering in Substructure Lensing*
A. Lazar, J. Bullock, **M. Boylan-Kolchin**, R. Feldmann, O. Çatmabacak, L. Moustakas (2021), [MNRAS](#), **502**, 6064
126. *A Relationship Between Stellar Metallicity Gradients and Galaxy Age in Dwarf Galaxies*
F. Mercado, J. Bullock, **M. Boylan-Kolchin**, J. Moreno, A. Wetzel, K. El-Badry, A. Graus, A. Fitts, P. Hopkins, C. Faucher-Giguère (2021), [MNRAS](#), **501**, 5121
125. *NGC 6822 as a Probe of Dwarf Galactic Evolution*
B. Belland, E. Kirby, **M. Boylan-Kolchin**, C. Wheeler (2020), [ApJ](#), **903**, 10
124. *A Dark Matter Profile to Model Diverse Feedback-Induced Core Sizes of Λ CDM Halos*
A. Lazar, J. Bullock, **M. Boylan-Kolchin**, T. Chan, P. Hopkins, A. Graus, A. Wetzel, K. El-Badry, C. Wheeler, M. Straight, D. Kereš, C. Faucher-Giguère, A. Fitts, S. Garrison-Kimmel (2020), [MNRAS](#), **497**, 2393
123. *Growing Pains: The Formation Times and Building Blocks of Milky Way-mass Galaxies in the FIRE Simulations*
I. Santistevan, A. Wetzel, K. El-Badry, J. Bland-Hawthorn, **M. Boylan-Kolchin**, J. Bailin, C. Faucher-Giguère, S. Benincasa (2020), [MNRAS](#), **497**, 747
122. *Stellar Feedback Sets the Universal Acceleration Scale in Galaxies*
M. Grudić, **M. Boylan-Kolchin**, C. Faucher-Giguère, P. Hopkins (2020), [MNRAS](#), **496**, L127
121. *Galaxy Formation with BECDM - II. Cosmic Filaments and First Galaxies*
P. Mocz, A. Fialkov, M. Vogelsberger, F. Becerra, X. Shen, V. Robles, M. Amin, J. Zavala, **M. Boylan-Kolchin**, S. Bose, F. Marinacci, P. Chavanis, L. Lancaster, L. Hernquist (2020), [MNRAS](#), **494**, 2027
120. *Stars Made in Outflows May Populate the Outer Stellar Halo of the Milky Way*
S. Yu, J. Bullock, A. Wetzel, R. Sanderson, A. Graus, **M. Boylan-Kolchin**, A. Nierenberg, M. Grudić, P. Hopkins, D. Kereš, C. Faucher-Giguère (2020), [MNRAS](#), **494**, 1539
119. *The Orbital Histories of Magellanic Satellites Using Gaia DR2 Proper Motions*
E. Patel, N. Kallivayalil, N. Garavito-Camargo, G. Besla, D. Weisz, R. Van Der Marel, **M. Boylan-Kolchin**, M. Pawlowski, F. Gómez (2020), [ApJ](#), **893**, 121
118. *Self-consistent Proto-globular Cluster Formation in Cosmological Simulations of High-redshift Galaxies*
X. Ma, M. Grudić, E. Quataert, P. Hopkins, C. Faucher-Giguère, **M. Boylan-Kolchin**, A. Wetzel, J. Kim, N. Murray, D. Kereš (2020), [MNRAS](#), **493**, 4315

117. *Evolution of Giant Molecular Clouds Across Cosmic Time*
D. Guszejnov, M. Grudić, S. Offner, **M. Boylan-Kolchin**, C. Faucher-Giguère, A. Wetzel, S. Benincasa, S. Loebman (2020), [MNRAS, 492, 488](#)
116. *A Profile in FIRE: Resolving the Radial Distributions of Satellite Galaxies in the Local Group with Simulations*
J. Samuel, A. Wetzel, E. Tollerud, S. Garrison-Kimmel, S. Loebman, K. El-Badry, P. Hopkins, **M. Boylan-Kolchin**, C. Faucher-Giguère, J. Bullock, S. Benincasa, J. Bailin (2019), [MNRAS, 491, 1471](#)
115. *Star Formation at the Edge of the Local Group: A Rising Star Formation History in the Isolated Galaxy WLM*
S. Albers, D. Weisz, A. Cole, A. Dolphin, E. Skillman, B. Williams, **M. Boylan-Kolchin**, J. Bullock, J. Dalcanton, P. Hopkins, R. Leaman, A. McConnachie, M. Vogelsberger, A. Wetzel (2019), [MNRAS, 490, 5538](#)
114. *Be it therefore resolved: Cosmological Simulations of Dwarf Galaxies with Extreme Resolution*
C. Wheeler, P. Hopkins, A. Pace, S. Garrison-Kimmel, **M. Boylan-Kolchin**, A. Wetzel, J. Bullock, D. Kereš, C. Faucher-Giguère, E. Quataert (2019), [MNRAS, 490, 4447](#)
113. *A Predicted Correlation Between Age Gradient and Star Formation History in FIRE Dwarf Galaxies*
A. Graus, J. Bullock, A. Fitts, M. Cooper, **M. Boylan-Kolchin**, D. Weisz, A. Wetzel, R. Feldmann, C. Faucher-Giguère, E. Quataert, P. Hopkins, D. Kereš (2019), [MNRAS, 490, 1186](#)
112. *Dwarf Galaxies in CDM, WDM, and SIDM: Disentangling Baryons and Dark Matter Physics*
A. Fitts, **M. Boylan-Kolchin**, B. Bozek, J. Bullock, A. Graus, V. Robles, P. Hopkins, K. El-Badry, S. Garrison-Kimmel, C. Faucher-Giguère, A. Wetzel, D. Kereš (2019), [MNRAS, 490, 962](#)
111. *Star Formation Histories of Dwarf Galaxies in the FIRE Simulations: Dependence on Mass and Local Group Environment*
S. Garrison-Kimmel, A. Wetzel, P. Hopkins, R. Sanderson, K. El-Badry, A. Graus, T.K. Chan, R. Feldmann, **M. Boylan-Kolchin**, C. Hayward, J. Bullock, A. Fitts, J. Samuel, C. Wheeler, D. Kereš, C. Faucher-Giguère (2019), [MNRAS, 489, 4574](#)
110. *First Star-forming Structures in Fuzzy Cosmic Filaments*
P. Mocz, A. Fialkov, M. Vogelsberger, F. Becerra, M. Amin, S. Bose, **M. Boylan-Kolchin**, P. Chavanis, L. Hernquist, L. Lancaster, F. Marinacci, V. Robles, J. Zavala (2019), [Physical Review Letters, 123, 14130](#)
109. *Dark and Luminous Satellites of LMC-mass Galaxies in the FIRE Simulations*
E. Jahn, L. Sales, A. Wetzel, **M. Boylan-Kolchin**, T. Chan, K. El-Badry, A. Lazar, J. Bullock (2019), [arXiv:1907.02979](#) [MNRAS, 489, 5348](#)
108. *How Low Does It Go? Too Few Galactic Satellites with Standard Reionization Quenching*
A. Graus, J. Bullock, T. Kelley, **M. Boylan-Kolchin**, S. Garrison-Kimmel, Y. Qi (2019), [MNRAS, 488, 4585](#)
107. *Phat ELVIS: The inevitable effect of the Milky Way's disk on its dark matter subhaloes*
T. Kelley, J. Bullock, S. Garrison-Kimmel, **M. Boylan-Kolchin**, M. Pawlowski, A. Graus (2019), [MNRAS, 487, 4409](#)
106. *The Local Group on Fire: Dwarf Galaxy Populations Across a Suite of Hydrodynamic Simulations*
S. Garrison-Kimmel, P. Hopkins, A. Wetzel, J. Bullock, **M. Boylan-Kolchin**, C. Faucher-Giguère, D. Kereš, K. El-Badry, A. Lamberts, E. Quataert, R. Sanderson (2019), [MNRAS, 487, 1380](#)
105. *Warm FIRE: Simulating Galaxy Formation with Resonant Sterile Neutrino Dark Matter*
B. Bozek, A. Fitts, **M. Boylan-Kolchin**, S. Garrison-Kimmel, K. Abazajian, J. Bullock, D. Kereš, C. Faucher-Giguère, A. Wetzel, R. Feldmann, P. Hopkins (2019), [MNRAS, 483, 4086](#)

104. *The Suppression of Star Formation on the Smallest Scales: What Role Does Environment Play?*
M. Rodriguez Wimberly, M. Cooper, S. Fillingham, **M. Boylan-Kolchin**, J. Bullock, S. Garrison-Kimmel (2019), [MNRAS, 483, 4031](#)
103. *Statistics of Two-point Correlation and Network Topology for Lyman Alpha Emitters at $z \approx 2.67$*
S. Hong, A. Dey, K. Lee, A. Orsi, K. Gebhardt, M. Vogelsberger, L. Hernquist, R. Xue, I. Jung, S. Finkelstein, S. Tuttle, **M. Boylan-Kolchin** (2019), [MNRAS, 483, 3950](#)
102. *Scalar Field Dark Matter: Helping or Hurting Small-Scale Problems in Cosmology?*
V. Robles, J. Bullock, **M. Boylan-Kolchin** (2019), [MNRAS, 483, 289](#)
101. *What Drives the Kinematic Evolution of Star-forming Galaxies?*
C. Hung, C. Hayward, T. Yuan, **M. Boylan-Kolchin**, C. Faucher-Giguère, P. Hopkins, D. Kereš, N. Murray, A. Wetzel (2019), [MNRAS, 482, 5125](#)
100. *The Formation and Hierarchical Assembly of Globular Cluster Populations*
K. El-Badry, E. Quataert, D. Weisz, N. Choksi, **M. Boylan-Kolchin** (2019), [MNRAS, 482, 4528](#)
99. *The Origin of the Diverse Morphologies and Kinematics of Milky Way-Mass Galaxies in the FIRE-2 Simulations*
S. Garrison-Kimmel, P. Hopkins, A. Wetzel, R. Sanderson, J. Bullock, X. Ma, F. van de Voort, Z. Hafen, C. Faucher-Giguère, C. Hayward, E. Quataert, D. Kereš, **M. Boylan-Kolchin** (2018), [MNRAS, 481, 4133](#)
98. *From the Top Down and Back Up Again: Star Cluster Structure from Hierarchical Star Formation*
M. Grudić, D. Guszejnov, P. Hopkins, A. Lamberts, **M. Boylan-Kolchin**, N. Murray, D. Schmitz (2018), [MNRAS, 481, 688](#)
97. *Discrete Effects in Stellar Feedback: Individual Supernovae, Hypernovae, and IMF Sampling in Dwarf Galaxies*
K. Su, P. Hopkins, C. Hayward, X. Ma, **M. Boylan-Kolchin**, D. Kasen, D. Kereš, C. Faucher-Giguère, M. Orr (2018), [MNRAS, 480, 1666](#)
96. *Through a Smoother Lens: An Expected Absence of Λ CDM Substructure Mass Detections in Hydrodynamic and Dark Matter Only Simulations*
A. Graus, J. Bullock, **M. Boylan-Kolchin**, A. Nierenberg (2018), [MNRAS, 480, 1322](#)
95. *The FIRE-2 Simulations: Physics versus Numerics in Galaxy Formation*
P. Hopkins and 27 co-authors, including **M. Boylan-Kolchin** (2018), [MNRAS, 480, 800](#)
94. *Where Are the Most Ancient Stars in the Milky Way?*
K. El-Badry, J. Bland-Hawthorn, A. Wetzel, E. Quataert, D. Weisz, **M. Boylan-Kolchin**, P. Hopkins, C. Faucher-Giguère, D. Kereš, S. Garrison-Kimmel (2018), [MNRAS, 480, 652](#)
93. *The Little Engines That Could? Globular Clusters Contribute Significantly to Reionization-era Star Formation*
M. Boylan-Kolchin (2018), [MNRAS, 479, 332](#)
92. *No Assembly Required: Mergers are Mostly Irrelevant for the Growth of Low-mass Dwarf Galaxies*
A. Fitts, **M. Boylan-Kolchin**, J. Bullock, D. Weisz, K. El-Badry, C. Wheeler, C. Faucher-Giguère, E. Quataert, P. Hopkins, D. Kereš, A. Wetzel (2018), [MNRAS, 479, 319](#)
91. *Simulating Galaxies in the Reionization Era with FIRE-2: the Stellar Mass–Halo Mass Relation, Stellar Mass Function, and Luminosity Functions at $z \geq 5$*
X. Ma, P. Hopkins, S. Garrison-Kimmel, C. Faucher-Giguère, E. Quataert, **M. Boylan-Kolchin**, C. Hayward, R. Feldmann, D. Kereš (2018), [MNRAS, 478, 1694](#)

90. *The Origin of Ultra-diffuse Galaxies: Stellar Feedback and Quenching*
T. Chan, D. Kereš, A. Wetzel, P. Hopkins, C. Faucher-Giguère, K. El-Badry, S. Garrison-Kimmel, **M. Boylan-Kolchin** (2018), [MNRAS, 478, 906](#)
89. *Environmental Quenching of Low-Mass Field Galaxies*
S. Fillingham, M. Cooper, **M. Boylan-Kolchin**, J. Bullock, S. Garrison-Kimmel, C. Wheeler (2018), [MNRAS, 477, 4491](#)
88. *ETHOS - An Effective Theory of Structure Formation: Predictions for the High-redshift Universe – Abundance of Galaxies and Reionization*
M. Lovell, J. Zavala, M. Vogelsberger, X. Shen, F. Cyr-Racine, C. Pfrommer, K. Sigurdson, **M. Boylan-Kolchin**, A. Pillepich (2018), [MNRAS, 477, 2886](#)
87. *How to Model Supernovae in Simulations of Star and Galaxy Formation*
P. Hopkins, A. Wetzel, D. Kereš, C. Faucher-Giguère, E. Quataert, **M. Boylan-Kolchin**, N. Murray, C. Hayward, D. Martizzi, K. El-Badry (2018), [MNRAS, 477, 1578](#)
86. *Gas Kinematics in Simulated FIRE Galaxies Compared to Spatially Unresolved HI Observations*
K. El-Badry, J. Bradford, E. Quataert, M. Geha, **M. Boylan-Kolchin**, D. Weisz, A. Wetzel, P. Hopkins, T. Chan, A. Fitts, D. Kereš, C. Faucher-Giguère (2018), [MNRAS, 477, 1536](#)
85. *Globular Clusters in High-Redshift Dwarf Galaxies: A Case Study from the Local Group*
T. Zick, D. Weisz, **M. Boylan-Kolchin** (2018), [MNRAS, 477, 480](#)
84. *Simulating Galaxies in the Reionization Era with FIRE-2: Morphologies and Sizes*
X. Ma, P. Hopkins, **M. Boylan-Kolchin**, C. Faucher-Giguère, E. Quataert, R. Feldmann, S. Garrison-Kimmel, C. Hayward, D. Kereš, A. Wetzel (2018), [MNRAS, 477, 219](#)
83. *Galaxy Motions Cause Trouble for Cosmology*
M. Boylan-Kolchin (2018), [Science, 359, 520](#)
82. *Gas Kinematics, Morphology, and Angular Momentum in the FIRE Simulations*
K. El-Badry, E. Quataert, A. Wetzel, P. Hopkins, T. Chan, A. Fitts, **M. Boylan-Kolchin**, D. Kereš, C. Faucher-Giguère, S. Garrison-Kimmel (2018), [MNRAS, 473, 1930](#)
81. *The ISLANDS Project. III. Variable Stars in Six Andromeda Dwarf Spheroidal Galaxies*
C. Martinez-Vazquez and 17 coauthors, including **M. Boylan-Kolchin** (2017), [ApJ, 850, 137](#)
80. *Dwarf Galaxy Mass Estimators vs. Cosmological Simulations*
A. Gonzalez-Samaniego, J. Bullock, **M. Boylan-Kolchin**, A. Fitts, O. Elbert, P. Hopkins, D. Kereš, C. Faucher-Giguère, E. Quataert (2017), [MNRAS, 472, 4786](#)
79. *The Globular Cluster – Dark Matter Halo Connection*
M. Boylan-Kolchin (2017), [MNRAS, 472, 3120](#)
78. *SIDM on FIRE: Hydrodynamical Self-Interacting Dark Matter Simulations of Low-mass Dwarf Galaxies*
V. Robles, J. Bullock, O. Elbert, A. Fitts, A. Gonzalez-Samaniego, **M. Boylan-Kolchin**, P. Hopkins, C. Faucher-Giguère, D. Kereš, C. Hayward (2017), [MNRAS, 472, 2945](#)
77. *The Importance of Preventive Feedback: Inference from Observations of the Stellar Masses and Metallicities for Milky Way Dwarf Galaxies*
Y. Lu, A. Benson, A. Wetzel, Y. Mao, S. Tonnesen, A. Peter, **M. Boylan-Kolchin**, R. Wechsler (2017), [ApJ, 846, 66](#)
76. *Galaxy Formation with BECDM - I. Turbulence and Relaxation of Idealized Haloes*
P. Mocz, M. Vogelsberger, V. Robles, J. Zavala, **M. Boylan-Kolchin**, A. Fialkov, L. Hernquist (2017) [MNRAS, 471, 4559](#)

75. *FIRE in the Field: Simulating the Threshold of Galaxy Formation*
A. Fitts, **M. Boylan-Kolchin**, O. Elbert, J. Bullock, J. Oñorbe, C. Wheeler, P. Hopkins, C. Faucher-Giguère, D. Kereš, E. Skillman, D. Weisz (2017), [MNRAS, 471, 3547](#)
74. *Not So Lumpy After All: Modeling the Depletion of Dark Matter Subhalos by Milky Way-like Galaxies*
S. Garrison-Kimmel, A. Wetzel, J. Bullock, P. Hopkins, **M. Boylan-Kolchin**, C. Faucher-Giguère, D. Kereš, E. Quataert, R. Sanderson, T. Kelley (2017), [MNRAS, 471, 1709](#)
73. *Small-Scale Challenges to the Λ CDM Paradigm*
J. Bullock & **M. Boylan-Kolchin** (2017), [ARAA, 55, 343](#)
72. *Local Group Ultra-Faint Dwarf Galaxies in the Reionization Era*
D. Weisz & **M. Boylan-Kolchin** (2017), [MNRAS, 469, L83](#)
71. *The Proper Motion of Pyxis: the First Use of Adaptive Optics in Tandem with HST on a Faint Halo Object*
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