

Publication List

Refereed First Author Publications

“The multiphase circumgalactic medium traced by low metal ions in EAGLE zoom simulations”
Oppenheimer, B. D., Schaye, J., Crain, R. A., Werk, J. K., & Richings, A. J. 2018, MNRAS, in press

“Deviations from hydrostatic equilibrium in the circumgalactic medium: spinning hot haloes and accelerating flows”
Oppenheimer, B. D. 2018, MNRAS, 480, 2963

“Bimodality of low-redshift circumgalactic O VI in non-equilibrium EAGLE zoom simulations”
Oppenheimer, B. D., Crain, R. A., Schaye, J., Rahmati, A., Richings, A. J., Trayford, J. W., Tumlinson, J., Bower, R. G., Schaller, M., Theuns, T. 2016, MNRAS, 460, 2157

“Feedback and Recycled Wind Accretion: Assembling the $z=0$ Galaxy Mass Function”
Oppenheimer, B. D., Davé, R., Keres, D., Fardal, M., Katz, N., Kollmeier, J. A., & Weinberg, D. H. 2010, MNRAS, 406, 2325

“Flickering AGN can explain the strong circumgalactic O VI observed by COS-Halos”
Oppenheimer, B. D., Segers, M., Schaye, J., Richings, A. J., & Crain, R. A. 2018, MNRAS, 474, 4740

“AGN proximity zone fossils and the delayed recombination of metal lines”
Oppenheimer, B. D. & Schaye, J., 2013b, MNRAS, 434, 1063

“Non-Equilibrium ionization and cooling of metal-enriched gas in the presence of a photo-ionization background”
Oppenheimer, B. D. & Schaye, J., 2013a, MNRAS, 434, 1043

“The intergalactic medium over the last 10 billion years II: Metal-line absorption and physical conditions”
Oppenheimer, B. D., Davé, R., Katz, N., Kollmeier, J. A., & Weinberg, D. H. 2012, MNRAS, 420, 829

“Tracing Reionization-Epoch Intergalactic Medium with Metal Absorption Lines”
Oppenheimer, B. D., Davé, R., & Finlator, K. 2009, MNRAS, 396, 729

“The Nature and Origin of Low-Redshift O VI Absorbers”
Oppenheimer, B. D. & Davé, R. 2009, MNRAS, 395, 1875

“Mass, Metal, and Energy Feedback in Cosmological Simulations”
Oppenheimer, B. D. & Davé, R. 2008, MNRAS, 387, 587

“Cosmological Simulations of Intergalactic Medium Enrichment from Galactic Outflows”
Oppenheimer, B. D. & Davé, R. A. 2006, MNRAS, 373, 1265

“Spectropolarimetry and Radiative Transfer Modeling of Three Proto-Planetary Nebulae”
Oppenheimer, B. D., Biegging, J. H., Schmidt, G. D., Gordon, K. D., Misselt, K. A., & Smith, P. S. 2005, ApJ, 624, 957

“An Analysis of AAVSO Observations of Z Camelopardalis”
Oppenheimer, B. D., Kenyon, S. J., & Mattei, J. A. 1998, AJ, 115, 1175

“Analysis of Long-Term AAVSO Observations of RS Ophiuchi”
Oppenheimer, B. D. & Mattei, J. A. 1993, JAVSO, 22, 105

Other Refereed Publications

“The COS CGM Compendium (CCC) I: Survey Design and Initial Results”
Lehner, N., Wotta, C. B., Howk, J. C., O’Meara, J. M., **Oppenheimer, B. D.**, & Cooksey, K. L. 2018, ApJ, Accepted

“Reionization in Technicolor”
Finlator, K., Keating, L., **Oppenheimer, B. D.**, Davé, R., & Zackrisson, E. 2018, MNRAS, 480, 2628

“The COS-AGN survey: Revealing the nature of circum-galactic gas around hosts of active galactic nuclei”
Berg, T. A. M., Ellison, S. L., Tumlinson, J., **Oppenheimer, B.**, Horton, R. et al., 2018, MNRAS, 478, 3890

“The metallicity distribution of HI systems in the EAGLE cosmological simulation”
Rahmati, A. & **Oppenheimer, B. D.**, 2018, MNRAS, 476, 4865

“Aligned metal absorbers and the ultraviolet background at the end of reionization”
Doughty, C., Finlator, K., **Oppenheimer, B. D.**, Davé, R. Zackrisson, E. 2018, MNRAS, 475, 4717

“Probing the Metal Enrichment of the Intergalactic Medium at $z = 5-6$ Using the Hubble Space Telescope”
Cai, Z., Fan, X., Davé, R., Finlator, K., & **Oppenheimer, B.** 2017, ApJL, 849, L18

“Metals in the circumgalactic medium are out of ionization equilibrium due to fluctuating active galactic nuclei”
Segers, M. C., **Oppenheimer, B. D.**, Schaye, J., & Richings, A. J. 2017, MNRAS, 471, 1026

“The Warm Circumgalactic Medium: 10^{5-6} K Gas Associated with a Single Galaxy Halo or with an Entire Group of Galaxies?”
Stoche, J. T., Keeney, B. A., Danforth, C. W., **Oppenheimer, B. D.**, Pratt, C. T., & Berlind, A. A. 2017, ApJ, 838, 37

“The minimum halo mass for star formation at $z = 6-8$ ”
Finlator, K., Prescott, M. K. M., **Oppenheimer, B. D.**, et al. 2017, MNRAS, 464, 1633

“The COS-Halos Survey: Origins of the Highly Ionized Circumgalactic Medium of Star-Forming Galaxies”
Werk, J. K., Prochaska, J. X., Cantalupo, S., Fox, A. J., **Oppenheimer, B.**, Tumlinson, J., et al. 2016, ApJ, 833, 54

“The Soft, Fluctuating UVB at $z \sim 6$ as Traced by C IV, Si IV, and C II”
Finlator, K., **Oppenheimer, B. D.**, Davé, R., Zackrisson, E., Thompson, R., Huang, S. 2016, MNRAS, 459, 2299

“Baryon Cycling in the Low-Redshift Circumgalactic Medium: A Comparison of Simulations to the COS-Halos Survey”

Ford, A. B., Werk, J. K., Davé, R., Tumlinson, J., Bordoloi, R., Katz, N., Kollmeier, J. A., **Oppenheimer, B. D.**, Peebles, M. S., Prochaska, J. X., Weinberg, D. H. 2016, MNRAS, 459, 1745

“Cosmic distribution of highly ionized metals and their physical conditions in the EA- GLE simulations”

Rahmati, A., Schaye, J., Crain, R. A., **Oppenheimer, B. D.**, Schaller, M., & Theuns, T. 2016, MNRAS, 459, 310

“The growth and enrichment of intragroup gas”

Liang, L., Durier, F., Babul, A., Davé, R., **Oppenheimer, B. D.**, Katz, N., Fardal, M., & Quinn, T. 2016, MNRAS, 456, 4266

“Nearby galaxy filaments and the Ly α forest: confronting simulations and the UV background with observations”

Wakker, B. P., Hernandez, A. K., French, D., Kim, T.-S., **Oppenheimer, B. D.**, Savage, B. D. 2015, ApJ, 814, 40

“The impact of environment and mergers on the H I content of galaxies in hydrodynamic simulations”

Rafieferantsoa, M., Davé, R., Anglés-Alcázar, D., Katz, N., Kollmeier, J. A., & **Oppenheimer, B. D.** 2015, MNRAS, 453, 3980

“The reionization of carbon”

Finlator, K., Thompson, R., Huang, S., Davé, R., Zackrisson, E., & **Oppenheimer, B. D.** 2015, MNRAS, 447, 2526

“Torque-Limited Growth of Massive Black Holes in Galaxies Across Cosmic Time”

Anglés-Alcázar, D., Özel, F., Davé, R., Katz, N., Kollmeier, J. A., & **Oppenheimer, B. D.** 2015, ApJ, 800, 127

“Tracing Inflows and Outflows with Absorption Lines in Circumgalactic Gas”

Ford, A. B., Davé, R., **Oppenheimer, B. D.**, Katz, N., Thompson, R., & Weinberg, D. H. 2014, MNRAS, 444, 1260

“Non-equilibrium chemistry and cooling in the diffuse interstellar medium - II. Shielded gas”

Richings, A. J., Schaye, J., & **Oppenheimer, B. D.** 2014, MNRAS, 442, 2780

“Non-equilibrium chemistry and cooling in the diffuse interstellar medium - I. Optically thin regime”

Richings, A. J., Schaye, J., & **Oppenheimer, B. D.** 2014, MNRAS, 440, 3349

“The COS-Dwarfs Survey: The Carbon Reservoir around Sub-L* Galaxies”

Bordoloi, R., Tumlinson, J., Werk, J. K., **Oppenheimer, B. D.**, Peebles, M. S., Prochaska, J. X., Tripp, T. M., et al. 2014, ApJ, 796, 136

“The Photon Underproduction Crisis”

Kollmeier, J. A., Weinberg, D. H., **Oppenheimer, B. D.**, et al. 2014, , ApJL, 789, L32

“A Budget and Accounting of Metals at $z=0$: Results from the COS-Halos Survey”

Peeples, M. S., Werk, J. K., Tumlinson, J., **Oppenheimer, B. D.**, Prochaska, J. X., Katz, N., & Weinberg, D. H. 2014, ApJ, 786, 54

“Cosmological Zoom Simulations of $z = 2$ Galaxies: The Impact of Galactic Outflows”

Anglés-Alcázar, D., Davé, R., Özel, F., & **Oppenheimer, B. D.**, 2014, ApJ, 782, 84

“The effect of metal enrichment and galactic winds on galaxy formation in cosmological zoom simulations”

Hirschmann, M., Naab, T., Davé, R., **Oppenheimer, B. D.**, Ostriker, J. P., Somerville, R. S., et al. 2013. MNRAS, 436, 2929

“The host haloes of O I absorbers in the reionization epoch”

Finlator, K., Munoz, J. A., **Oppenheimer, B. D.**, Oh, S. P., Özel, F., & Davé, R. 2013, MNRAS, 436, 1818

“The COS-Halos Survey: Rationale, Design, and a Census of Circumgalactic Neutral Hydrogen”

Tumlinson, J. et al. (**Oppenheimer** 8th of 14 authors) 2013, ApJ, 777, 59

“The neutral hydrogen content of galaxies in cosmological hydrodynamic simulations”

Davé, R., Katz, N., **Oppenheimer, B. D.**, Kollmeier, J. A., & Weinberg, D. H. 2013, ApJ, 434, 2645

“Hydrogen and Metal Line Absorption Around Low-Redshift Galaxies in Cosmological Hydrodynamic Simulations”

Ford, A. B., **Oppenheimer, B. D.**, Davé, R., Katz, N., & Weinberg, D. H. 2013, MNRAS, 432, 89

“Not Dead Yet: Cool Circumgalactic Gas in the Halos of Early-type Galaxies”

Thom, C., Tumlinson, J., Werk, J. K., Prochaska, J. X., **Oppenheimer, B. D.**, Peeples, M. S., Tripp, T. M. et al. 2012, ApJL, 758, L41

“A fundamental problem in our understanding of low-mass galaxy evolution”

Weinmann, S. M., Pasquali, A., **Oppenheimer, B. D.**, Finlator, K., Mendel, J. T., Crain, R. A., & Maccio, A. V. 2012, MNRAS, 426, 2797

“Subhalo Abundance Matching in Cosmological SPH Simulations”

Simha, V., Weinberg, D. H., Davé, R., Fardal, M., Katz, N., & **Oppenheimer, B. D.** 2012, MNRAS, 423, 3458

“An analytic model for the evolution of the stellar, gas and metal content of galaxies”

Davé, R., Finlator, K., & **Oppenheimer, B. D.** 2012, MNRAS, 421, 38

“Short-lived Star-forming Giant Clumps in Cosmological Simulations of $z = 2$ Disks”

Genel, S., Naab, T., Genzel, R., Förster Schreiber, N. M., Sternberg, A., Oser, L., Davé, R., & **Oppenheimer, B. D.** 2012, ApJ, 745, 11

“The Large, Oxygen-Rich Halos of Star-Forming Galaxies Are a Major Reservoir of Galactic Metals”

Tumlinson, J., Thom, C., Werk, J. K., Prochaska, J. X., Tripp, T. M., Weinberg, D. H., Peeples, M. S., O’Meara, J. M., **Oppenheimer, B. D.**, Meiring, J. D., Katz, N. S., Dav, R., Ford, A. B., & Sembach, K. R. 2011, Science, 334, 948

“Quenching Massive Galaxies with On-the-fly Feedback in Cosmological Hydrodynamic Simulations”

Gabor, J. M., Davé, R., **Oppenheimer, B. D.**, & Finlator, K. 2011, MNRAS, 417, 2676

“Galaxy evolution in cosmological simulations with outflows - II. Metallicities and gas fractions”

Davé, R., Finlator, K., & **Oppenheimer, B. D.** 2011, MNRAS, 416, 1354

“Galaxy evolution in cosmological simulations with outflows - I. Stellar masses and star formation rates”

Davé, R., **Oppenheimer, B. D.**, & Finlator, K. 2011, MNRAS, 415, 11

“Intergalactic dust extinction in hydrodynamic cosmological simulations”

Zu, Y., Weinberg, D. H., Davé, R., Fardal, M., Katz, N., Keres, D., & **Oppenheimer, B. D.** 2011, MNRAS, 412, 1059

“Smoothly rising star formation histories during the reionization epoch”

Finlator, K., **Oppenheimer, B. D.**, & Davé, R., 2011 MNRAS, 410, 1703

“The intergalactic medium over the last 10 billion years - I. Ly α absorption and physical conditions”

Davé, R., **Oppenheimer, B. D.**, Katz, N., Kollmeier, J. A., & Weinberg, D. H. 2010, MNRAS, 408, 2051

“How is star formation quenched in massive galaxies?”

Gabor, J. M., Davé, R., Finlator, K., & **Oppenheimer, B. D.** 2010, MNRAS, 407, 749

“The nature of submillimetre galaxies in cosmological hydrodynamic simulations”

Davé, R., Finlator, K., **Oppenheimer, B. D.**, Fardal, M., Katz, N., Keres, D., & Weinberg, D. H. 2010, MNRAS, 404, 1355

“A Search for Oxygen in the Low-density Ly Forest using the Sloan Digital Sky Survey”

Pieri, M. M., Frank, S., Mathur, S., Weinberg, D. H., York, D. G., & **Oppenheimer, B. D.** 2010, ApJ, 716, 1084

“The late reionization of filaments”

Finlator, K., Özel, F., Davé, R., & **Oppenheimer, B. D.**, 2009, MNRAS, 400, 1049

“The simulated H I sky at low redshift”

Popping, A., Davé, R., Braun, R., & **Oppenheimer, B. D.**, 2009, A&A, 504, 15

“Enrichment and Pre-Heating in Intragroup Gas from Galactic Outflows”

Davé, R., **Oppenheimer, B. D.**, & Sivanandam, S. 2008, MNRAS, 391, 110

“The Flux Auto- and Cross-Correlation of the Ly α Forest. II. Modeling Anisotropies with Cosmological Hydrodynamic Simulations”

Marble, A. R., Eriksen, K. A., Impey, C. D., **Oppenheimer, B. D.**, & Davé, R. 2008, ApJ, 675, 946

“Constraints on Physical Properties of $z \sim 6$ Galaxies Using Cosmological Hydrodynamic Simulations”

Finlator, K., Davé, R., & **Oppenheimer, B. D.** 2007, MNRAS, 376, 1861

“The Enrichment History of Baryons in the Universe”

Davé, R. & Oppenheimer, B. D. 2007, MNRAS, 374, 427

“The Physical Properties and Detectability of Reionization-Epoch Galaxies”

Davé, R., Finlator, K., & Oppenheimer, B. D. 2006, MNRAS, 370, 273

“NICMOS2 Hubble Space Telescope Observations of the Embedded Cluster Associated with Mon R2: Constraining the Substellar Initial Mass Function”

Andersen, M., Meyer, M. R., Oppenheimer, B., Dougados, C., & Carpenter, J. 2006, AJ, 132, 2296

“Optical Spectropolarimetry of Asymptotic Giant Branch and Post-Asymptotic Giant Branch Stars”

Biegging, J. H., Schmidt, G. D., Smith, P. S., & Oppenheimer, B. D., 2006, ApJ, 639, 1053

“A Search for Substellar Companions around 15 Weak-Lined T Tauri Stars with the Planetary Camera 2 of the Hubble Space Telescope”

Massarotti, A., Latham, D. W., Torres, G., Brown, R. A., & Oppenheimer, B. D. 2005, AJ, 129, 2294

“The Approaching Death of the OH/IR star IRAS 18455+0448”

Lewis, B. M., Oppenheimer, B. D., & Daubar, I. J. 2001, ApJ, 548, 77