

DiRAC Publications 2017

dp002: The COSMOS Consortium: Fundamental Cosmology and the Origin of Structure in the Universe

PI: Prof. Paul Shellard

Science Area: Astronomy & Astrophysics

Machines: Data Centric, SMP, Data Analytic, Complexity

Institute: University of Cambridge

Black hole hair formation in shift-symmetric generalised scalar-tensor gravity

Benkel, Robert, Sotiriou, Thomas P., Witek, Helvi

2017, CQGrA, [10.1088/1361-6382/aa5ce7](https://doi.org/10.1088/1361-6382/aa5ce7)

The cross-correlation between 21 cm intensity mapping maps and the Ly α forest in the post-reionization era

Carucci, Isabella P., Villaescusa-Navarro, Francisco, Viel, Matteo

2017, JCAP, [10.1088/1475-7516/2017/04/001](https://doi.org/10.1088/1475-7516/2017/04/001)

The origin of type I profiles in cluster lenticulars: an interplay between ram pressure stripping and tidally induced spiral migration

Clarke, Adam J., Debattista, Victor P., Roskar, Rok, et al.

2017, MNRAS, [10.1093/mnras/slw214](https://doi.org/10.1093/mnras/slw214)

Numerical simulations of necklaces in SU(2) gauge-Higgs field theory

Hindmarsh, Mark, Rummukainen, Kari, Weir, David J.

2017, PhRvD, [10.1103/PhysRevD.95.063520](https://doi.org/10.1103/PhysRevD.95.063520)

Challenges to self-acceleration in modified gravity from gravitational waves and large-scale structure

Lombriser, Lucas, Lima, Nelson A.

2017, PhLB, [10.1016/j.physletb.2016.12.048](https://doi.org/10.1016/j.physletb.2016.12.048)

The structural evolution of galaxies with both thin and thick discs

Aumer, Michael, Binney, James

2017, MNRAS, [10.1093/mnras/stx1300](https://doi.org/10.1093/mnras/stx1300)

Migration and kinematics in growing disc galaxies with thin and thick discs

Aumer, Michael, Binney, James, Schnrich, Ralph

2017, MNRAS, [10.1093/mnras/stx1483](https://doi.org/10.1093/mnras/stx1483)

The Sherwood simulation suite: overview and data comparisons with the Lyman alpha forest at redshifts $2 \leq z \leq 5$

Bolton, James S., Puchwein, Ewald, Sijacki, Debora, et al.

2017, MNRAS, [10.1093/mnras/stw2397](https://doi.org/10.1093/mnras/stw2397)

Large-scale opacity fluctuations in the Ly α forest: evidence for QSOs dominating

the ionizing UV background at $z \sim 5.5-6$?

Chardin, Jonathan, Puchwein, Ewald, Haehnelt, Martin G.
2017, MNRAS, [10.1093/mnras/stw2943](https://doi.org/10.1093/mnras/stw2943)

Collapse and Nonlinear Instability of AdS Space with Angular Momentum

Choptuik, Matthew W., Dias, Óscar J. C., Santos, Jorge E., et al.
2017, PhRvL, [10.1103/PhysRevLett.119.191104](https://doi.org/10.1103/PhysRevLett.119.191104)

Robustness of inflation to inhomogeneous initial conditions

Clough, Katy, Lim, Eugene A., DiNunno, Brandon S., et al.
2017, JCAP, [10.1088/1475-7516/2017/09/025](https://doi.org/10.1088/1475-7516/2017/09/025)

Extraction of gravitational-wave energy in higher dimensional numerical relativity using the Weyl tensor

Cook, William G., Sperhake, Ulrich
2017, CQGrA, [10.1088/1361-6382/aa5294](https://doi.org/10.1088/1361-6382/aa5294)

Black-hole head-on collisions in higher dimensions

Cook, William G., Sperhake, Ulrich, Berti, Emanuele, et al.
2017, PhRvD, [10.1103/PhysRevD.96.124006](https://doi.org/10.1103/PhysRevD.96.124006)

Localised and nonuniform thermal states of super-Yang-Mills on a circle

Dias, Óscar J. C., Santos, Jorge E., Way, Benson
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The properties, origin and evolution of stellar clusters in galaxy simulations and observations

Dobbs, C. L., Adamo, A., Few, C. G., et al.
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End Point of the Ultraspinning Instability and Violation of Cosmic Censorship

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2017, PhRvL, [10.1103/PhysRevLett.118.151103](https://doi.org/10.1103/PhysRevLett.118.151103)

On the equal-mass limit of precessing black-hole binaries

Gerosa, Davide, Sperhake, Ulrich, Vosmera, Jakub
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Thermal Schwinger pair production at arbitrary coupling

Gould, Oliver, Rajantie, Arttu
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Using inpainting to construct accurate cut-sky CMB estimators

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First evidence of external disc photoevaporation in a low mass star forming region: the case of IM Lup

Haworth, Thomas J., Facchini, Stefano, Clarke, Cathie J., et al.

2017, MNRAS, [10.1093/mnras/slx037](https://doi.org/10.1093/mnras/slx037)

Constraining the dark energy equation of state using Bayes theorem and the Kullback-Leibler divergence

Hee, S., Vázquez, J. A., Handley, W. J., et al.

2017, MNRAS, [10.1093/mnras/stw3102](https://doi.org/10.1093/mnras/stw3102)

Black hole formation from axion stars

Helfer, Thomas, Marsh, David J. E., Clough, Katy, et al.

2017, JCAP, [10.1088/1475-7516/2017/03/055](https://doi.org/10.1088/1475-7516/2017/03/055)

Scaling from gauge and scalar radiation in Abelian-Higgs string networks

Hindmarsh, Mark, Lizarraga, Joanes, Urrestilla, Jon, et al.

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The Lyman alpha forest power spectrum from the XQ-100 Legacy Survey

Irsic, Vid, Viel, Matteo, Berg, Trystyn A. M., et al.

2017, MNRAS, [10.1093/mnras/stw3372](https://doi.org/10.1093/mnras/stw3372)

First Constraints on Fuzzy Dark Matter from Lyman-alpha Forest Data and Hydrodynamical Simulations

Irsic, Vid, Viel, Matteo, Haehnelt, Martin G., et al.

2017, PhRvL, [10.1103/PhysRevLett.119.031302](https://doi.org/10.1103/PhysRevLett.119.031302)

New constraints on the free-streaming of warm dark matter from intermediate and small scale Lyman-alpha forest data

Irsic, Vid, Viel, Matteo, Haehnelt, Martin G., et al.

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Impacts of a flaring star-forming disc and stellar radial mixing on the vertical metallicity gradient

Kawata, Daisuke, Grand, Robert J. J., Gibson, Brad K., et al.

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Large 21-cm signals from AGN-dominated reionization

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2017, MNRAS, [10.1093/mnras/stx1167](https://doi.org/10.1093/mnras/stx1167)

Matter bispectrum of large-scale structure with Gaussian and non-Gaussian initial conditions: Halo models, perturbation theory, and a three-shape model

Lazanu, Andrei, Giannantonio, Tommaso, Schmittfull, Marcel, et al.

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Is there another coincidence problem at the reionization epoch?

Lombriser, Lucas, Smer-Barreto, Vanessa

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Cosmic microwave background constraints for global strings and global monopoles

Lopez-Eiguren, Asier, Lizarraga, Joanes, Hindmarsh, Mark, et al.

2017, JCAP, [10.1088/1475-7516/2017/07/026](https://doi.org/10.1088/1475-7516/2017/07/026)

Evolution of semilocal string networks. II. Velocity estimators

Lopez-Eiguren, A., Urrestilla, J., Achúcarro, A., et al.

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Measuring global monopole velocities, one by one

Lopez-Eiguren, Asier, Urrestilla, Jon, Achúcarro, Ana

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Equation of State and Duration to Radiation Domination after Inflation

Lozanov, Kaloian D., Amin, Mustafa A.

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Gas around galaxy haloes - III: hydrogen absorption signatures around galaxies and QSOs in the Sherwood simulation suite

Meiksin, Avery, Bolton, James S., Puchwein, Ewald

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Gravitational waves from extreme mass ratio inspirals around bumpy black holes

Moore, Christopher J., Chua, Alvin J. K., Gair, Jonathan R.

2017, CQGrA, [10.1088/1361-6382/aa85fa](https://doi.org/10.1088/1361-6382/aa85fa)

Astrometric Search Method for Individually Resolvable Gravitational Wave Sources with Gaia

Moore, Christopher J., Mihaylov, Deyan P., Lasenby, Anthony, et al.

2017, PhRvL, [10.1103/PhysRevLett.119.261102](https://doi.org/10.1103/PhysRevLett.119.261102)

The effect of stellar and AGN feedback on the low-redshift Lyman alpha forest in the Sherwood simulation suite

Nasir, Fahad, Bolton, James S., Viel, Matteo, et al.

2017, MNRAS, [10.1093/mnras/stx1648](https://doi.org/10.1093/mnras/stx1648)

Uncertainties in s-process nucleosynthesis in massive stars determined by Monte Carlo variations

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2017, MNRAS, [10.1093/mnras/stx696](https://doi.org/10.1093/mnras/stx696)

Exploring the thermal state of the low-density intergalactic medium at $z = 3$ with an ultrahigh signal-to-noise QSO spectrum

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The role of stellar radial motions in shaping galaxy surface brightness profiles

Ruiz-Lara, T., Few, C. G., Florido, E., et al.

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AMI SZ observation of galaxy-cluster merger CIZA J2242+5301: perpendicular flows of gas and dark matter

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Assessing distances and consistency of kinematics in Gaia/TGAS
Schönrich, Ralph, Aumer, Michael
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Planck satellite constraints on pseudo-Nambu-Goldstone boson quintessence
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Long-Lived Inverse Chirp Signals from Core-Collapse in Massive Scalar-Tensor Gravity
Sperhake, Ulrich, Moore, Christopher J., Rosca, Roxana, et al.
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Diagnosing galactic feedback with line broadening in the low-redshift Ly α forest
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dp004: VIRGO Consortium
PI: Prof. Carlos Frenk
Science Area: Astronomy & Astrophysics
Machines: Data Centric
Institute: Durham University

Size evolution of normal and compact galaxies in the EAGLE simulation
Furlong, M., Bower, R. G., Crain, R. A., et al.
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The SCUBA-2 Cosmology Legacy Survey: 850 μ m maps, catalogues and number counts
Geach, J. E., Dunlop, J. S., Halpern, M., et al.
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The dark nemesis of galaxy formation: why hot haloes trigger black hole growth and bring star formation to an end
Bower, Richard G., Schaye, Joop, Frenk, Carlos S., et al.
2017, MNRAS, [10.1093/mnras/stw2735](https://doi.org/10.1093/mnras/stw2735)

The BAHAMAS project: calibrated hydrodynamical simulations for large-scale structure cosmology
McCarthy, Ian G., Schaye, Joop, Bird, Simeon, et al.
2017, MNRAS, [10.1093/mnras/stw2792](https://doi.org/10.1093/mnras/stw2792)

The Auriga Project: the properties and formation mechanisms of disc galaxies across

cosmic time

Grand, Robert J. J., Gómez, Facundo A., Marinacci, Federico, et al.
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The EAGLE simulations: atomic hydrogen associated with galaxies

Crain, Robert A., Bahé, Yannick M., Lagos, Claudiadel P., et al.
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What does the Bullet Cluster tell us about self-interacting dark matter?

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A chronicle of galaxy mass assembly in the EAGLE simulation

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Sales, Laura V., Navarro, Julio F., Oman, Kyle, et al.
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Knowing the unknowns: uncertainties in simple estimators of galactic dynamical masses

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2017, MNRAS, [10.1093/mnras/stx975](https://doi.org/10.1093/mnras/stx975)

The redshift evolution of massive galaxy clusters in the MACSIS simulations

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Shaken and stirred: the Milky Way's dark substructures

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Snap, crackle, pop: sub-grid supernova feedback in AMR simulations of disc galaxies

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Rapid formation of massive black holes in close proximity to embryonic protogalaxies

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The slight spin of the old stellar halo

Deason, Alis J., Belokurov, Vasily, Koposov, Sergey E., et al.

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The origin of scatter in the stellar mass-halo mass relation of central galaxies in the EAGLE simulation

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Lovell, Mark R., Bose, Sownak, Boyarsky, Alexey, et al.

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The link between galaxy and black hole growth in the eagle simulation

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The Cluster-EAGLE project: global properties of simulated clusters with resolved galaxies

Barnes, David J., Kay, Scott T., Bahé, Yannick M., et al.

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Addressing the too big to fail problem with baryon physics and sterile neutrino dark matter

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The environmental dependence of gas accretion on to galaxies: quenching satellites through starvation

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The origin of the mass discrepancy-acceleration relation in Λ CDM

Navarro, Julio F., Benítez-Llambay, Alejandro, Fattahi, Azadeh, et al.

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Optical colours and spectral indices of $z = 0.1$ eagle galaxies with the 3D dust

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How to get cool in the heat: comparing analytic models of hot, cold, and cooling gas in haloes and galaxies with EAGLE

Stevens, Adam R. H., Lagos, Claudiadel P., Contreras, Sergio, et al.
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The Hydrangea simulations: galaxy formation in and around massive clusters

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Projection effects in the strong lensing study of subhaloes

Li, Ran, Frenk, Carlos S., Cole, Shaun, et al.
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The impact of baryons on massive galaxy clusters: halo structure and cluster mass estimates

Henson, Monique A., Barnes, David J., Kay, Scott T., et al.
2017, MNRAS, [10.1093/mnras/stw2899](https://doi.org/10.1093/mnras/stw2899)

The spatial distribution of neutral hydrogen as traced by low H I mass galaxies

Kim, Han-Seek, Wyithe, J. Stuart. B., Baugh, C. M., et al.
2017, MNRAS, [10.1093/mnras/stw2779](https://doi.org/10.1093/mnras/stw2779)

Metals in the circumgalactic medium are out of ionization equilibrium due to fluctuating active galactic nuclei

Segers, Marijke C., Oppenheimer, Benjamin D., Schaye, Joop, et al.
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Magnetic field formation in the Milky Way like disc galaxies of the Auriga project

Pakmor, Rüdiger, Gómez, Facundo A., Grand, Robert J. J., et al.
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Barred galaxies in the EAGLE cosmological hydrodynamical simulation

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Winds of change: reionization by starburst galaxies

Sharma, Mahavir, Theuns, Tom, Frenk, Carlos, et al.
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Cosmic particle colliders: simulations of self-interacting dark matter with anisotropic scattering

Robertson, Andrew, Massey, Richard, Eke, Vincent
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The oldest and most metal-poor stars in the APOSTLE Local Group simulations
Starkenburger, Else, Oman, Kyle A., Navarro, Julio F., et al.
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Size matters: abundance matching, galaxy sizes, and the Tully-Fisher relation in EAGLE
Ferrero, Ismael, Navarro, Julio F., Abadi, Mario G., et al.
2017, MNRAS, [10.1093/mnras/stw2691](https://doi.org/10.1093/mnras/stw2691)

The far infra-red SEDs of main sequence and starburst galaxies
Cowley, William I., Béthermin, Matthieu, Lagos, Claudiadel P., et al.
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The properties of ‘dark’ Λ CDM haloes in the Local Group
Benítez-Llambay, Alejandro, Navarro, Julio F., Frenk, Carlos S., et al.
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The evolution of the galaxy content of dark matter haloes
Contreras, S., Zehavi, I., Baugh, C. M., et al.
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The origin of the enhanced metallicity of satellite galaxies
Bah, Yannick M., Schaye, Joop, Crain, Robert A., et al.
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Abell 2744: too much substructure for Λ CDM?
Schwinn, J., Jauzac, M., Baugh, C. M., et al.
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The separate and combined effects of baryon physics and neutrino free streaming on large-scale structure
Mummery, Benjamin O., McCarthy, Ian G., Bird, Simeon, et al.
2017, MNRAS, [10.1093/mnras/stx1469](https://doi.org/10.1093/mnras/stx1469)

Small-scale galaxy clustering in the eagle simulation
Artale, M. Celeste, Pedrosa, Susana E., Trayford, James W., et al.
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Understanding the non-linear clustering of high-redshift galaxies
Jose, Charles, Baugh, Carlton M., Lacey, Cedric G., et al.
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Bose, Sownak, Li, Baojiu, Barreira, Alexandre, et al.

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Lessons from the Auriga discs: the hunt for the Milky Way's ex situ disc is not yet over

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dp005: Theoretical Astrophysics at Leicester**PI: Dr Mark Wilkinson****Science Area: Astronomy & Astrophysics****Machines: Data Analytic, Complexity****Institute: University of Leicester**

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Institute: University of Edinburgh

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PI: Dr Andreas Jüttner

Science Area: Particle Physics

Machines: BG/Q

Institute: University of Southampton

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dp010: UKMHD Consortium: 2) Solar Atmosphere

PI: Prof. Alan Hood

Science Area: Astronomy & Astrophysics

Machines: BG/Q, Data Analytic, Wilkes GPU

Institute: University of St Andrews

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dp012: Black Holes

PI: Dr Debora Sijacki

Science Area: Astronomy & Astrophysics

Machines: Data Centric, Data Analytic, Complexity

Institute: University of Cambridge

AGN jet feedback on a moving mesh: cocoon inflation, gas flows and turbulence

Bourne, Martin A., Sijacki, Debora

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The effect of stellar and AGN feedback on the low-redshift Lyman alpha forest in the Sherwood simulation suite

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dp014: Galactic scale studies of star formation

PI: Prof. Ian Bonnell

Science Area: Astronomy & Astrophysics

Machines: Complexity

Institute: University of St Andrews

Can the removal of molecular cloud envelopes by external feedback affect the efficiency of star formation?

Lucas, William E., Bonnell, Ian A., Forgan, Duncan H.
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dp015: High Performance Computing Support for Exeter Astrophysics

PI: Prof. Matthew Bate

Science Area: Astronomy & Astrophysics

Machines: BG/Q, Data Centric, Complexity
Institute: University of Exeter

On the dynamics of dust during protostellar collapse

Bate, Matthew R., Lorén-Aguilar, Pablo

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Boutle, Ian A., Mayne, Nathan J., Drummond, Benjamin, et al.

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The roles of stellar feedback and galactic environment in star-forming molecular clouds

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The properties, origin and evolution of stellar clusters in galaxy simulations and observations

Dobbs, C. L., Adamo, A., Few, C. G., et al.

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Lithium Depletion in Solar-like Stars: Effect of Overshooting Based on Realistic Multi-dimensional Simulations

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Extreme value statistics for two-dimensional convective penetration in a pre-main sequence star

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The Magnitude of Viscous Dissipation in Strongly Stratified Two-dimensional Convection

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dp016: Nephthys: A New Generation of Galaxy Zooms

PI: Dr Adrienne Slyz

Science Area: Astronomy & Astrophysics

Machines: Complexity

Institute: University of Oxford

The rise and fall of stellar discs across the peak of cosmic star formation history: effects of mergers versus diffuse stellar mass acquisition

Welker, C., Dubois, Y., Devriendt, J., et al.

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The Horizon-AGN simulation: evolution of galaxy properties over cosmic time
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Cosmic evolution of stellar quenching by AGN feedback: clues from the Horizon-AGN simulation
Beckmann, R. S., Devriendt, J., Slyz, A., et al.
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Migration and kinematics in growing disc galaxies with thin and thick discs
Aumer, Michael, Binney, James, Schnrich, Ralph
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dp020: EXOMOL
PI: Prof. Jonathon Tennyson
Science Area: Astronomy & Astrophysics
Machines: SMP, Data Analytic
Institute: University College London

Adapting the serial Alpgen parton-interaction generator to simulate LHC collisions on millions of parallel threads

Childers, J. T., Uram, T. D., L Compte, T. J., et al.
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dp031: Kinetic Plasma Turbulence
PI: Prof. David Burgess
Science Area: Astronomy & Astrophysics
Machines: Complexity
Institute: Queen Mary University of London

Three-dimensional simulations of sheared current sheets: transition to turbulence?
Gingell, Imogen, Sorriso-Valvo, Luca, Burgess, David, et al.
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dp040: Stellar Structure and Nucleosynthesis
PI: Dr Raphael Hirschi
Science Area: Astronomy & Astrophysics
Machines: Data Centric, SMP
Institute: Keele University

Fast evolving pair-instability supernova models: evolution, explosion, light curves
Kozyreva, Alexandra, Gilmer, Matthew, Hirschi, Raphael, et al.
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Gilmer, Matthew S., Kozyreva, Alexandra, Hirschi, Raphael, et al.
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dp041: Spectral Modelling of Type 1b/c Supernovae
PI: Dr Anders Jerkstrand

Science Area: Astronomy & Astrophysics
Machines: Data Analytic
Institute: Queen's University Belfast

Long-duration Superluminous Supernovae at Late Times
Jerkstrand, A., Smartt, S. J., Inserra, C., et al.
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dp046: Galactic Evolution
PI: Dr Victor Debattista
Science Area: Astronomy & Astrophysics
Machines: SMP
Institute: University of Central Lancashire

Separation of stellar populations by an evolving bar: implications for the bulge of the Milky Way
Debattista, Victor P., Ness, Melissa, Gonzalez, Oscar A., et al.
2017, MNRAS, [10.1093/mnras/stx947](https://doi.org/10.1093/mnras/stx947)

The kinematics of sigma-drop bulges from spectral synthesis modelling of a hydrodynamical simulation
Portaluri, Elisa, Debattista, Victor P., Fabricius, Maximillian, et al.
2017, MNRAS, [10.1093/mnras/stx172](https://doi.org/10.1093/mnras/stx172)

Spatial and kinematic segregation in star-cluster merger remnants
Cole, David R., Debattista, Victor P., Varri, Anna-Lisa, et al.
2017, MNRAS, [10.1093/mnras/stw3325](https://doi.org/10.1093/mnras/stw3325)

The origin of type I profiles in cluster lenticulars: an interplay between ram pressure stripping and tidally induced spiral migration
Clarke, Adam J., Debattista, Victor P., Roskar, Rok, et al.
2017, MNRAS, [10.1093/mnrasl/slw214](https://doi.org/10.1093/mnrasl/slw214)

dp047: DISCSIM
PI: Prof. Cathy Clarke
Science Area: Astronomy & Astrophysics
Machines: SMP, Data Analytic
Institute: University of Southampton

The origin of the eccentricity of the hot Jupiter in CI Tau
Rosotti, G. P., Booth, R. A., Clarke, C. J., et al.
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On the Origin of the Spiral Morphology in the Elias 2-27 Circumstellar Disk

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First evidence of external disc photoevaporation in a low mass star forming region:
the case of IM Lup

Haworth, Thomas J., Facchini, Stefano, Clarke, Cathie J., et al.

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dp051: Excited Charmonia from Lattice QCD

PI: Dr Christopher Thomas

Science Area: Particle Physics

Machines: Data Analytic

Institute: University of Cambridge

Tetraquark operators in lattice QCD and exotic flavour states in the charm sector

Cheung, Gavin K. C., Thomas, Christopher E., Dudek, Jozef J., et al.

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dp060: Temperature dependent cross-sections for large hydrocarbons

PI: Dr Sergey Yurchenko

Science Area: Astronomy & Astrophysics

Machines: SMP, Data Analytic, Wilkes GPU

Institute: University College London

Adapting the serial Alpgen parton-interaction generator to simulate LHC collisions
on millions of parallel threads

Childers, J. T., Uram, T. D., L Compte, T. J., et al.

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Laboratory spectra of hot molecules: Data needs for hot super-Earth exoplanets

Tennyson, Jonathan, Yurchenko, Sergei N.

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Simulating electric field interactions with polar molecules using spectroscopic databases

Owens, Alec, Zak, Emil J., Chubb, Katy L., et al.
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dp063: Simulating whistler-mode wave-particle interactions in the magnetosphere

PI: Dr Daisuke Kawata

Science Area: Astronomy & Astrophysics

Machines: Data Analytic

Institute: University College London

Stars with fast Galactic rotation observed in Gaia TGAS: a signature driven by the Perseus arm?

Hunt, Jason A. S., Kawata, Daisuke, Monari, Giacomo, et al.
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The history of the dark and luminous side of Milky Way-like progenitors

Graziani, L., de Bressan, M., Schneider, R., et al.
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dp064: Linking the nuclear interaction to the structure of the heavy elements

PI: Dr Carlo Barbieri

Science Area: Particle Physics

Machines: Data Analytic, Complexity

Institute: University of Surrey

A new statistical method for the structure of the inner crust of neutron stars

Pastore, A., Shelley, M., Baroni, S., et al.
2017, JPhG, [10.1088/1361-6471/aa8207](https://doi.org/10.1088/1361-6471/aa8207)

dp066: UKMHD Consortium: 3 Astrophysical MHD and Kinetic Simulations.

PI: Prof. Sam Falle

Science Area: Astronomy & Astrophysics

Machines: Complexity
Institute: University of Leeds

Hydrodynamic ablation of protoplanetary discs via supernovae
Close, J. L., Pittard, J. M.
2017, MNRAS, [10.1093/mnras/stx897](https://doi.org/10.1093/mnras/stx897)

Hydrodynamic simulations of mechanical stellar feedback in a molecular cloud formed by thermal instability
Wareing, C. J., Pittard, J. M., Falle, S. A. E. G.
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Magnetohydrodynamic simulations of mechanical stellar feedback in a sheet-like molecular cloud
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The interaction of hydrodynamic shocks with self-gravitating clouds
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dp071: Simulation of active galactic nuclei jet feedback in galaxy clusters
PI: Dr Martin Bourne
Science Area: Astronomy & Astrophysics
Machines: Data Centric, Data Analytic
Institute: University of Cambridge

AGN jet feedback on a moving mesh: cocoon inflation, gas flows and turbulence
Bourne, Martin A., Sijacki, Debra
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