

Curriculum vitae

Cyril GEORGY

Place of birth: Delémont (Switzerland)
Nationality: Swiss (JU)
Marital status: single
Situation: Research Associate in the massive stars group,
Geneva Observatory, Geneva University



Contact details

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Education and formation

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| Since Sept. 2015 | Post-Doc in the massive stars group, Geneva Observatory, Geneva University |
| Feb. 2013 - Aug 2015 | Post-Doc in the astrophysics group, iEPSAM, Keele University (ERC grant) |
| Feb. 2011 - Jan. 2013 | Post-Doc in the group of numerical simulations in astrophysics, CRAL, Lyon (Grant of the Swiss National Fund for Scientific Research) |
| Sep. 2010 - Jan. 2011 | Post-Doc in the group of internal structure of stars and stellar evolution, Geneva Observatory |
| 24 Sep. 2010 | PhD thesis in Astrophysics (<i>'Anisotropic Mass Loss and Stellar Evolution: From Be Stars to Gamma Ray Bursts'</i>) under the supervision of Prof. G. Meynet, Geneva Observatory |
| June 2006 | Master thesis in Physics (<i>'Lithium in halo stars in the light of WMAP'</i>) under the supervision of Dr. Corinne Charbonnel, University of Geneva |
| June 2001 | Maturité fédérale (scientific), Lycée Cantonal, Porrentruy (JU) |

Scientific research

Publications

The applicant has published 131 articles on astrophysical research (24 as first author). Among them, 73 were published in journals with peer-reviewed system, and 58 in proceedings of international conferences. The applicant is first author of 11 of these refereed papers. Altogether, these papers are cited more than 3000 times. The applicant is also first author of one book chapter. These works concern stellar evolution, stellar physics, mass loss of massive stars and progenitors of supernovae and Gamma-Ray bursts. The applicant published a Letter to the Editor in *A&A* as single author, which was selected in monthly highlights of the journal (*A&A* 538, L8).

The applicant has presented 13 invited contributions and 18 oral contributions in international conferences and meetings, and 4 seminars. He was also selected to participate to the 2012 Aspen summer workshop on the basis on his contributions in the field of massive star evolution linked with the progenitor of gamma-ray bursts.

Overview of the publication records (updated 01.04.2019, according to the NASA ADS tool):

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| published papers | 131 (24 first author, 47 <i>without</i> PhD advisor (36%)) |
| peer-reviewed papers | 73 (11 first author, 32 <i>without</i> PhD advisor (44%)) |
| book chapter | 1 |
| total citations | 3426 |
| normalised citations | 617 |
| h-index | 32 |

Actual research topics

Here are indicated some of the actual research directions explored by the applicant:

- Convection, rotation, internal magnetic field and magnetic braking in stars as physical processes through standard 1D evolution codes and multi-dimensional hydrodynamical codes.
- Effects on the internal mixing of chemical species and angular momentum. Impact on the evolution of massive stars.
- Fast rotating stars, equatorial mass loss in critically rotating stars (Be and Oe stars).
- Anisotropic stellar winds and impact on the circum-stellar medium.
- Stellar nucleosynthesis and consequences on the chemical evolution of galaxies.
- Supernova and Gamma-Ray burst progenitors at various metallicities.
- Luminous blue variables as a stage of the life of very massive stars.

Awards and grants

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| 2018 | PI of project “CIMS-EHres - Convection In Massive Stars, going to Extremely-High resolution simulations of stellar interiors” (PRACE proposal 2017174145), awarded with 42 million CPU hours at the BSC MareNostrum facility. |
| 2017 | Co-I of project “Isotopic CNO abundances in Galactic Red Supergiant Stars” 1.5 night on GIANO @ TNG (PI Dr Urbaneja) |
| 2017 | MERAC funding and travel award: 3500 CHF |
| 2016-2017 | PI of project “CIMS - Convection In Massive Stars: towards a better understanding of stellar evolution” (PRACE proposal 2016143263), awarded with 13.3 million CPU hours at the BSC MareNostrum facility. |
| 2016-2017 | Team leader of the project “Towards a new generation of massive star models: improving stellar evolution modelling with hydrodynamics simulations and observations” , granted by ISSI (Bern, Switzerland), to organise 2 workshops. |
| 2015 | PI of project “Convection in massive stars: towards a better understanding of stellar evolution” (2010PA3004), awarded with 50000 CPU hours on Hazel Hen @ HLR Stuttgart (PRACE preparatory access) |
| 2015 | Co-I of project “Stellar hydrodynamics, evolution and nucleosynthesis” (ACLP53), awarded with 9.68 million CPU hours at the STFC DiRAC facility (PI Dr Raphael Hirschi) |
| 2015 | Co-I of project “Pulsating supergiants in NGC 300: rare siblings to the supergiant progenitor of SN1987A?” , awarded with 4 half-nights observing time on X-Shooter (VLT, period 95A, PI Dr Norbert Przybilla) |
| 2012 | Young scientist grant SNF for 1 year ‘ <i>Une perspective multi-dimensionnelle en évolution stellaire</i> ’ (43’440.00 CHF, grant number PBGEP2-134210) |
| 2011 | Young scientist grant SNF for 1 year ‘ <i>Une perspective multi-dimensionnelle en évolution stellaire</i> ’ (44’000.00 CHF, grant number PBGEP2-139849) |

Conferences and seminars

- July 2018** Invited talk at the 'TASC4/KASC11' conference, Aarhus, 'Convection in massive stars: what can be learnt from hydrodynamics simulations and asteroseismology?'
- March 2018** Invited review at the general assembly of the German Physical Society, Würzburg, 'Instabilities in the modelling of massive stars'
- September 2017** Invited talk at the conference 'Ages²: Taking Stellar Ages to the Next Power', Elba Island
- June 2017** Invited talk at the conference 'Stellar Hydro Days IV', held in Victoria: 'Convection in massive stars'
- December 2016** Invited talk at the IAU symposium 329 'The Lifes and Death-Throes of massive stars' held in Auckland: 'Evolution models of red supergiants'
- August 2016** Review talk at the 2nd BRITE-Constellation Science Conference 'Small satellites, big science' held in Innsbruck: 'Massive star evolution, what we do(n't) know'
- June 2016** Invited talk at the conference 'The B[e] Phenomenon: Forty Years of Studies' held in Prague: 'The advanced stages of stellar evolution: impact of mass loss, rotation, and link with B[e] stars'
- August 2015** Poster presented at the IAU symposium 316 of the IAU General Assembly 'Formation, Evolution, and Survival of Massive Star Clusters' held in Honolulu: 'Synthetic clusters of massive stars to test stellar evolution models'
- August 2015** Contributed talk at the focused meeting 10 of the IAU General Assembly 'Stellar Explosions in an Ever-Changing Environment' held in Honolulu: 'Supernova progenitors as a test for stellar physics'
- August 2015** Contributed talk at the focused meeting 16 of the IAU General Assembly 'Stellar Behemoths - Red Supergiants Across the Local Universe' held in Honolulu: 'The luminosity distribution of RSGs to test their mass-loss rate'
- June 2015** Invited review at the conference 'EARLY E-ELT SCIENCE: Spectroscopy with HARMONI' held in Oxford: 'Stellar evolution in the light of spectroscopy'
- June 2015** Talk at the conference 'The physics of evolved stars: a conference dedicated to the memory of Olivier Chesneau' held in Nice: 'Mass loss of red supergiants: a key ingredient for the final evolution of massive stars'
- June 2015** Contributed talk at the 'International Workshop on Wolf-Rayet Stars' held in Potsdam: 'Wolf-Rayet stars as an evolved stage of stellar life'
- May 2015** Contributed talk at the conference 'Massive Stars and the Gaia-ESO Survey' held in Bruxelles: 'Modelling massive stars populations'
- April 2015** Seminar at Sheffield University, invited by Justyn Maund: 'Single massive star evolution: the effects of mass loss and rotation'
- November 2014** Seminar at IAC, invited by Sergio Simon-Diaz: 'Populations of rotating stars'
- October 2014** Invited review at the TUMPSE workshop, held in Montpellier: 'Evolution of massive stars: What do(n't) we know?'
- September 2014** Talk at the BRIDGCE workshop, held in Keele: 'SHYNE project overview'
- June 2014** Contributed talk at the IAU symposium 307 'New windows on massive stars: asteroseismology, interferometry, and spectropolarimetry' held in Geneva: 'Combining observational techniques to constrain convection in evolved massive star models'
- June 2014** talk at the workshop (on invitation) 'ESTER workshop' held in Toulouse: 'Treatment of convection in the modelling of massive stars'
- January 2014** Invited talk at the conference held in Brussels 'ATHENA Brussels workshop on Astrophysics': 'Stellar evolution through successive burning phases'
- January 2014** Workshop held in Bormio 'Gamma-ray Burst - Magnetar thinkshop'
- November 2013** Contributed talk at the conference held in Natal '400 Years of Stellar Rotation': 'Red or blue? The advanced stages of massive stars evolution'
- July 2013** Contributed talk at the workshop held in Leiden 'Steps Towards a New Generation of Stellar Models': 'Rotation in 1-D simulations of massive stars: status and perspectives'

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| June 2013 | Contributed talk at the massive stars conference held in Rhodes ' <i>Massive stars: from α to $\Omega!$</i> ' : ' <i>Wolf Rayet, Yellow and Red Supergiants in the single massive stars perspective</i> ' |
| April 2013 | Invited talk (young scientist) at the ISSI workshop held in Bern ' <i>Multi-Scale Structure Formation and Dynamics in Cosmic Plasmas</i> ' : ' <i>Wind of massive stars and interaction with the CSM</i> ' |
| November 2012 | Contributed talk at the Betelgeuse workshop in Paris ' <i>The physics of Red Supergiants: recent advances and open questions</i> ' : ' <i>How the mass-loss rates of red-supergiants determine the fate of massive stars?</i> ' |
| June 2012 | Aspen workshop ' <i>The Evolution of Massive Stars and Progenitors of Gamma-Ray Bursts</i> ' |
| April 2012 | Seminar at Exeter University, invited by Maxime Viallet: ' <i>The evolution of (non) rotating massive stars</i> '. |
| July 2011 | Invited talk at the Sexten Center for Astrophysics Conference on the theme ' <i>Chemical Evolution of GRB Host Galaxies</i> ' : ' <i>Conditions for quasi-homogeneous stellar evolution</i> '. |
| July 2011 | Contributed talk at the ' <i>Massive Stars & Supernovae Workshop</i> ' held in Cambridge: ' <i>WR and SN population at solar Z from single stars</i> '. |
| June 2011 | Contributed talk at the Cefalù meeting on the theme ' <i>Advances in Computational Astrophysics : methods, tools and outcomes</i> ' : ' <i>Simulating the circum-stellar environment of supernova and GRB progenitors by combining stellar evolution models and hydrodynamical code</i> '. |
| November 2010 | Talk presented during the annual general assembly of the Swiss Society for Astronomy and Astrophysics: ' <i>The progenitors of supernovae at various metallicities</i> '. |
| July 2010 | Poster presented at the IAU symposium 272 in Paris ' <i>Active OB stars: structure, evolution, mass loss and critical limits</i> ' : ' <i>Equatorial mass loss from Be stars</i> '. |
| June 2010 | Contributed talk at the XXVIth IAP colloquium held in Paris ' <i>Progenitors and environments of stellar explosions</i> ' : ' <i>The progenitors of supernovae at various metallicities</i> '. |
| May 2010 | Seminar at CRAL, Lyon, invited by Prof. Rolf Walder: ' <i>Supernova and Gamma-Ray burst progenitors from rotating stellar models</i> '. |
| November 2009 | IAU symposium 268 held in Geneva ' <i>Light elements in the Universe</i> '. |
| March 2009 | Contributed talk at the CHARA workshop in Nice: ' <i>Fast rotating massive stars: surface and circum-stellar diagnostics</i> '. |
| June 2008 | Contributed talk presented at the IAU symposium 255, held in Rapallo ' <i>Low-metallicity star formation: From the first stars to dwarf galaxies</i> ' : ' <i>Wind anisotropy and impact on stellar evolution</i> ' |

International collaborations

The applicant is involved in several international collaborations. Regular collaborators are:

- The Geneva stellar evolution group at the Geneva University (Prof. Georges Meynet and collaborators, Switzerland).
- The group of hydrodynamical simulations at the ENS Lyon (Prof. Rolf Walder, France).
- Raphaël Hirschi (Keele University, Great-Britain).
- Christoph Mordasini (Bern University, Switzerland)
- Emily Levesque (University of Colorado, Boulder, USA)
- Phillip Massey (Lowell Observatory, Flagstaff, USA)
- Hideyuki Saio (Tohoku University, Sendai, Japan)
- Casey Meakin and Dave Arnett (University of Arizona, USA)

- Fritz Röpke and Philipp Edelman (Institute for theoretical studies, Heidelberg, Germany)
- Norbert Przybilla (Innsbruck University, Austria)
- Richard Anderson (The Johns Hopkins University, Baltimore, USA)
- Jean-Claude Bouret (Laboratoire d'Astrophysique de Marseille, France)
- Fabrice Martins (Université de Montpellier, France)
- Coralie Neiner (Observatoire de Paris-Meudon, France)
- Gregg Wade (Royal Military College of Canada, Canada)

Referring

The applicant has been asked for referring scientific papers and observing proposals for the following journals and instruments, or for evaluating scientific projects from the following funding agencies:

- Nature Astronomy
- Astronomy & Astrophysics
- Monthly Notices of the Royal Academic Society and Monthly Notices of the Royal Academic Society Letters
- Astrophysical Journal and Letters
- Revista Mexicana de Astronomía y Astrofísica
- OPTICON
- Conicyt (Chile)

Activities linked with scientific research

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| 2017 | Organiser of the 49th Saas-Fee lecture ' <i>Supernovae: Cosmic explosions</i> ' |
| 2017 | Organiser of the first ISSI meeting of team 367 ' <i>Towards a New Generation of Massive Star Models</i> ' |
| 2014 | Editor of the proceedings of the IAU symposium 307 |
| 2014 | Member of the LOC, IAU symposium 307 ' <i>New windows on massive stars: asteroseismology, interferometry, and spectropolarimetry</i> ', Geneva, june 23-27 |
| 2014 | Chair of a session at the <i>ATHENA Brussels workshop on Astrophysics</i> |
| 2010 | Member of the LOC organising the First Summerschool of the SCFA ' <i>Stars and Supernovae in galaxies</i> ', St-Luc, september 13-17 |
| 2009 | Member of the LOC, IAU symposium 268 ' <i>Light elements in the Universe</i> ', Geneva, november 9-13 |

Membership

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| since 2012 | IAU member (Division B and G, Commission B1 " <i>Computational Astrophysics</i> ", Commission G2 " <i>Massive Stars</i> ", Commission G3 " <i>Stellar Evolution</i> ") |
| since 2006 | Swiss Society of Astronomy and Astrophysics |
| | European Astronomical Society |
| since 1999 | Société Jurassienne d'Astronomie |

Public outreach

The applicant has a great interest in public outreach and communication. He's regularly participating to:

- Public conferences about various subjects related to astronomy and astrophysics.
- Participation to actions of scientific promotion.
- Public observations and institute visits.

Teaching and advising

Teaching

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| 2017 | 6 weeks replacements of Prof. Georges Meynet for the lectures ' <i>Cosmic physics</i> ', 5x2h. |
| 2016 | Occasional replacements of Prof. Georges Meynet for the lectures ' <i>Cosmic physics</i> '. |
| January 2016 | Lecture at the ' <i>Astrobiology Introductory Course</i> ' (' <i>Rencontres Exobiologiques pour Doctorants</i> ' held in Le Teich, France (2 x 3h). |
| 2014 | Preparation and supervision of the tutorials of the lecture ' <i>Physics of Fluids</i> '. |
| 2006-2009 | Occasional replacements of Prof. Georges Meynet for the lectures ' <i>Internal structure and stellar evolution</i> ' and ' <i>Physical basics of astrophysics</i> '. |
| 2006-2009 | Assistant of Prof. Georges Meynet for the lecture ' <i>Internal structure and stellar evolution</i> '. Exercises (1h / week). |

Advising

The applicant has followed several student during their internships, at the bachelor and master levels (University of Geneva), L3 and M1 level (ENS Lyon), and PhD level (Keele University).

The applicant has particularly been involved in advising the following master theses:

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| May 2011 | ' <i>A tool for stellar population synthesis with the Geneva evolution code for rotating stars</i> ', Aurélien Wytttenbach |
| April 2008 | ' <i>Propriétés de surface des étoiles en rotation rapide</i> ', Coralie Beffa |

The applicant was involved in advising the PhD thesis of Andrea Cristini (Keele University), about '*Convection in Massive Stars*', that were defended in 2017.

Thesis jury member

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| 2018 | Flavio Calvo, ' <i>High-resolution simulations of the solar photosphere with focus on the polarimetry of the solar continuum</i> ', Geneva University |
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Skills

- **Computing:**
 - operating systems: Mac OS X, Solaris (Unix), Linux (various distributions), Windows
 - programming: Fortran, C, C++, shell scripting (bash, tcsh), Python, Pascal
 - numerical simulations: knowledge about parallel computing (MPI, openMP).

- scientific softwares: Maple, Matlab, Matplotlib, SuperMongo
- text and image edition softwares: Latex, VisIt, Office, OpenOffice, Gimp, Inkscape
- web application development (Django)
- **Languages:**
 - French (mother tongue)
 - English (fluent)
 - German (good knowledge)
 - Italian (basics)
- **Music:**
 - choir singing (in the mixed choirs *Vocalistes Romands*, *Espace Choral*, *Académie Bach* and in the chamber choir *Opus_Choeur de Chambre*)
 - organ and piano, figured bass
- **Sport:**
 - athletics, 100m, 200m, long jump. Several cantonal champion titles. Vice Western Switzerland champion in 2000, 200m.

Complete publication list

Publications in peer-reviewed journals

- [1] GRIDS OF STELLAR MODELS WITH ROTATION IV. MODELS FROM 1.7 TO 120 MSUN AT A METALLICITY $Z = 0.0004$.
Groh J. H., Ekström S., Georgy C., Meynet G., Choplin A., Eggenberger P., Hirschi R., Maeder A., Murphy L. J., Boian I., and Farrell E. J.
(2019) arXiv e-prints – arXiv:1904.04009 [[ADS](#)]
- [2] THE EFFECTS OF SURFACE FOSSIL MAGNETIC FIELDS ON MASSIVE STAR EVOLUTION: I. MAGNETIC FIELD EVOLUTION, MASS-LOSS QUENCHING, AND MAGNETIC BRAKING.
Keszthelyi Z., Meynet G., Georgy C., Wade G. A., Petit V., and David-Uraz A.
(2019) MNRAS **485** 5843–5860 – arXiv:1902.09333 [[ADS](#)]
- [3] STELLAR MODELS AND ISOCHRONES FROM LOW-MASS TO MASSIVE STARS INCLUDING PRE-MAIN SEQUENCE PHASE WITH ACCRETION.
Haemmerlé L., Eggenberger P., Ekström S., Georgy C., Meynet G., Postel A., Audard M., Sørensen M., and Fragos T.
(2019) A&A **624** A137 – arXiv:1903.10550 [[ADS](#)]
- [4] DEPENDENCE OF CONVECTIVE BOUNDARY MIXING ON BOUNDARY PROPERTIES AND TURBULENCE STRENGTH.
Cristini A., Hirschi R., Meakin C., Arnett D., Georgy C., and Walkington I.
(2019) MNRAS **484** 4645–4664 – arXiv:1901.10531 [[ADS](#)]
- [5] DISAPPEARANCE OF THE EXTENDED MAIN SEQUENCE TURN-OFF IN INTERMEDIATE AGE CLUSTERS AS A CONSEQUENCE OF MAGNETIC BRAKING.
Georgy C., Charbonnel C., Amard L., Bastian N., Ekström S., Lardo C., Palacios A., Eggenberger P., Cabrera-Ziri I., Gallet F., and Lagarde N.
(2019) A&A **622** A66 [[ADS](#)]
- [6] A NOVEL APPROACH TO CONSTRAIN ROTATIONAL MIXING AND CONVECTIVE-CORE OVERSHOOT IN STARS USING THE INITIAL–FINAL MASS RELATION.
Cummings Jeffrey D., Kalirai Jason S., Choi Jieun, Georgy C., Tremblay P. E., and Ramirez-Ruiz Enrico.
(2019) ApJ **871** L18 – arXiv:1901.02904 [[ADS](#)]
- [7] ASTEROSEISMOLOGY OF EVOLVED STARS TO CONSTRAIN THE INTERNAL TRANSPORT OF ANGULAR MOMENTUM. I. EFFICIENCY OF TRANSPORT DURING THE SUBGIANT PHASE.
Eggenberger P., Deheuvels S., Miglio A., Ekström S., Georgy C., Meynet G., Lagarde N., Salmon S., Buldgen G., Montalbán J., Spada F., and Ballot J.
(2019) A&A **621** A66 – arXiv:1812.04995 [[ADS](#)]
- [8] IMPACT OF BINARY INTERACTION ON THE EVOLUTION OF BLUE SUPERGIANTS. THE FLUX-WEIGHTED GRAVITY LUMINOSITY RELATIONSHIP AND EXTRAGALACTIC DISTANCE DETERMINATIONS.
Farrell E. J., Groh J. H., Meynet G., Kudritzki R., Eldridge J. J., Georgy C., Ekström S., and Yoon S. C.
(2019) A&A **621** A22 – arXiv:1810.01830 [[ADS](#)]
- [9] 3D SIMULATIONS AND MLT: I. RENZINI’S CRITIQUE.
Arnett W. David, Meakin Casey, Hirschi Raphael, Cristini Andrea, Georgy Cyril, Campbell Simon, Scott Laura, and Kaiser Etienne.
(2018) ArXiv e-prints arXiv:1810.04653 – arXiv:1810.04653 [[ADS](#)]

- [10] 3D SIMULATIONS AND MLT: II. RA-ILES RESULTS.
Arnett W. David, Meakin Casey, Hirschi Raphael, Cristini Andrea, Georgy Cyril, Campbell Simon, Scott Laura J. A., and Kaiser Etienne A.
(2018) ArXiv e-prints arXiv:1810.04659 – arXiv:1810.04659 [ADS]
- [11] EXTENDED MAIN SEQUENCE TURNOFFS IN OPEN CLUSTERS AS SEEN BY GAIA - I. NGC 2818 AND THE ROLE OF STELLAR ROTATION.
Bastian N., Kamann S., Cabrera-Ziri I., Georgy C., Ekström S., Charbonnel C., de Juan Ovelar M., and Usher C.
(2018) MNRAS **480** 3739–3746 – arXiv:1807.10779 [ADS]
- [12] STAR-PLANET INTERACTIONS. V. DYNAMICAL AND EQUILIBRIUM TIDES IN CONVECTIVE ZONES.
Rao Suvrat, Meynet Georges, Eggenberger Patrick, Haemmerlé Lionel, Privitera Giovanni, Georgy Cyril, Ekström Sylvia, and Mordasini Christoph.
(2018) A&A **618** A18 – arXiv:1807.01474 [ADS]
- [13] A RUNAWAY YELLOW SUPERGIANT STAR IN THE SMALL MAGELLANIC CLOUD.
Neugent K. F., Massey P., Morrell N. I., Skiff B., and Georgy C.
(2018) AJ **155** 207 – arXiv:1803.02859 [ADS]
- [14] THE LIFE CYCLES OF BE VISCOUS DECRETION DISCS: FUNDAMENTAL DISC PARAMETERS OF 54 SMC BE STARS.
Rímulo L. R., Carciofi A. C., Vieira R. G., Rivinius T., Faes D. M., Figueiredo A. L., Bjorkman J. E., Georgy C., Ghoreyshi M. R., and Soszyński I.
(2018) MNRAS **476** 3555–3579 – arXiv:1802.07641 [ADS]
- [15] CLOSE BINARY EVOLUTION. II. IMPACT OF TIDES, WIND MAGNETIC BRAKING, AND INTERNAL ANGULAR MOMENTUM TRANSPORT.
Song H. F., Meynet G., Maeder A., Ekström S., Eggenberger P., Georgy C., Qin Y., Fragos T., Soerensen M., Barblan F., and Wade G. A.
(2018) A&A **609** A3 – arXiv:1709.01902 [ADS]
- [16] FIRST RESULTS FROM THE LIFE PROJECT: DISCOVERY OF TWO MAGNETIC HOT EVOLVED STARS.
Martin A. J., Neiner C., Oksala M. E., Wade G. A., Keszthelyi Z., Fossati L., Marcolino W., Mathis S., and Georgy C.
(2018) MNRAS **475** 1521–1536 – arXiv:1712.07403 [ADS]
- [17] QUIESCENT AND ACTIVE PHASES IN BE STARS: A WISE SNAPSHOT OF YOUNG GALACTIC OPEN CLUSTERS.
Granada A., Jones C. E., Sigut T. A. A., Semaan T., Georgy C., Meynet G., and Ekström S.
(2018) AJ **155** 50 – arXiv:1712.05209 [ADS]
- [18] DISCOVERY OF MAGNETIC A SUPERGIANTS: THE DESCENDANTS OF MAGNETIC MAIN-SEQUENCE B STARS.
Neiner C., Oksala M. E., Georgy C., Przybilla N., Mathis S., Wade G., Kondrak M., Fossati L., Blazère A., Buysschaert B., and Grunhut J.
(2017) MNRAS **471** 1926–1935 – arXiv:1707.00560 [ADS]
- [19] TESTING A ONE-DIMENSIONAL PRESCRIPTION OF DYNAMICAL SHEAR MIXING WITH A TWO-DIMENSIONAL HYDRODYNAMIC SIMULATION.
Edelmann P. V. F., Röpke F. K., Hirschi R., Georgy C., and Jones S.
(2017) A&A **604** A25 – arXiv:1704.06261 [ADS]
- [20] 3D HYDRODYNAMIC SIMULATIONS OF CARBON BURNING IN MASSIVE STARS.
Cristini A., Meakin C., Hirschi R., Arnett D., Georgy C., Viallet M., and Walkington I.
(2017) MNRAS **471** 279–300 – arXiv:1610.05173 [ADS]
- [21] GW170104 AND THE ORIGIN OF HEAVY, LOW-SPIN BINARY BLACK HOLES VIA CLASSICAL ISOLATED BINARY EVOLUTION.

Belczynski K., Klencki J., Meynet G., Fryer C. L., Brown D. A., Chruslinska M., Gladysz W., O'Shaughnessy R., Bulik T., Berti E., Holz D. E., Gerosa D., Giersz M., Ekström S., Georgy C., Askar A., and Lasota J.-P.
(2017) ArXiv e-prints – arXiv:1706.07053 [ADS]

- [22] CHEMICAL ABUNDANCES OF FAST-ROTATING MASSIVE STARS . II. INTERPRETATION AND COMPARISON WITH EVOLUTIONARY MODELS.
Cazorla C., Nazé Y., Morel T., Georgy C., Godart M., and Langer N.
(2017) A&A **604** A123 – arXiv:1706.06856 [ADS]
- [23] PRE-SUPERNOVA MIXING IN CEMP-NO SOURCE STARS.
Choplan A., Ekström S., Meynet G., Maeder A., Georgy C., and Hirschi R.
(2017) A&A **605** A63 – arXiv:1706.05313 [ADS]
- [24] STAR-PLANET INTERACTIONS. IV. POSSIBILITY OF DETECTING THE ORBIT-SHRINKING OF A PLANET AROUND A RED GIANT.
Meynet G., Eggenberger P., Privitera G., Georgy C., Ekström S., Alibert Y., and Lovis C.
(2017) A&A **602** L7 – arXiv:1706.02234 [ADS]
- [25] CONSTRAINING THE EFFICIENCY OF ANGULAR MOMENTUM TRANSPORT WITH ASTEROSEISMOLOGY OF RED GIANTS: THE EFFECT OF STELLAR MASS.
Eggenberger P., Lagarde N., Miglio A., Montalbán J., Ekström S., Georgy C., Meynet G., Salmon S., Ceillier T., García R. A., Mathis S., Deheuvels S., Maeder A., den Hartogh J. W., and Hirschi R.
(2017) A&A **599** A18 – arXiv:1612.04258 [ADS]
- [26] POSSIBLE PAIR-INSTABILITY SUPERNOVAE AT SOLAR METALLICITY FROM MAGNETIC STELLAR PROGENITORS.
Georgy C., Meynet G., Ekström S., Wade G. A., Petit V., Keszthelyi Z., and Hirschi R.
(2017) A&A **599** L5 – arXiv:1702.02340 [ADS]
- [27] PERIOD–LUMINOSITY RELATIONS OF FAST-ROTATING B-TYPE STARS IN THE YOUNG OPEN CLUSTER NGC 3766.
Saio H., Ekström S., Mowlavi N., Georgy C., Saesen S., Eggenberger P., Semaan T., and Salmon S. J. A. J.
(2017) MNRAS **467** 3864–3873 – arXiv:1702.02306 [ADS]
- [28] A HIGH FRACTION OF BE STARS IN YOUNG MASSIVE CLUSTERS: EVIDENCE FOR A LARGE POPULATION OF NEAR-CRITICALLY ROTATING STARS.
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