Personal details

Name	Mark Gieles
ORCID	0000-0002-9716-1868
Address	Insitute of Cosmos Sciences, University of Barcelona, E-08028 Barcelona, Spain
Telephone	+34 934031324
e-mail	mgieles@icc.ub.edu

Employment

2018 – present	ICREA Research Professor, University of Barcelona, Spain
2013 – 2019	Professor of Astrophysics, University of Surrey, UK
2013 – 2018	Royal Society University Research Fellowship (URF)
2013 – 2018	Head of the Astrophysics Research Group, University of Surrey, UK
2010 – 2012	Royal Society URF, Institute of Astronomy, University of Cambridge, UK
2009	ESO Fellowship, School of Mathematics, Edinburgh, UK
2006 – 2009	ESO Fellowship, Santiago/Paranal, Chile

Highlights of academic achievements

2024	Co-author on Nature publication on two waves of runaway stars in 30 Doradus
2021	First author on Nature Astronomy publication on discovery of black hole population in Palomar 5
2019	Setup a Virgo/gravitational wave research group at ICCUB, Spain
2017 & 2019	Ranked A for ERC Consolidator grant (under funding cut-off)
2018	Became Research Professor of Catalan Institution for Research & Advanced Studies (ICREA)
2017	Joined editorial board of Monthly Notices of the Royal Astronomical Society (MNRAS)
2014	Awarded a 3-year extension of Royal Society University Research Fellowship (URF)
2013	Awarded an ERC Starting Grant (Stg-335936, CLUSTERS)
2013	Became full Professor and setup a new astrophysics research group at the University of Surrey, UK
2010	Co-author on Annual Review of Astronomy and Astrophysics (ARAA), $>$1000 citations
2009	Awarded a 5-year Royal Society University Research Fellowship (URF)

Education

2002 – 2006	PhD in astronomy: *Star clusters*
	Thesis adviser: Prof. Henny J.G.L.M. Lamers
	Co-adviser: Prof. Simon F. Portegies Zwart
	Astronomical Institute, Utrecht University, the Netherlands
1995 – 2002	MSc in observational astronomy
	Astronomical Institute, Utrecht University, the Netherlands
	MSc in experimental physics
	Department of Nuclear Medicine, University Medical Center Utrecht, the Netherlands

Grants and awards

2024 – 2027	Junior Leader Fellowship, La Caixa (host, PI:Guiliano Iorio, €300k)
2023	Funding for HPC facility, UB funding (co-PI, €30k)
2023 – 2026	Doctoral INPhINIT incoming fellowship, La Caixa (host, PI:Fotios Fronimos Pouliasis, €100k)
2023 – 2026	Beatriu de Pinós fellowship, AGAUR (host, PI: Sara Rastello, €144k)
2022 – 2025	Proyectos de Generación de Conocimiento Spanish Ministry of Science and Innovation (PI, €194k)
2021 – 2024	SGR GRE AGAUR (PI, €36k)
2020 – 2023	Europa Excelencia grant Spanish Ministry of Science and Innovation (PI, €60k)
2020 – 2023	María de Maeztu Unit of Excellence grant ICCUB (co-I, €2M)
2013 – 2019	Starting Grant, European Research Council (ERC) (PI, €1.5M)
2018 – 2020	Consolidated grant, STFC (co-PI, PI: Rob Izzard, £300k)
2014 – 2018	University Research Fellowship (URF), Royal Society (PI, £350k)
2014 – 2016	Newton International Fellowship (host, PI: Alice Zocchi. £90k)
2011 – 2013	Royal Society Research Grant (PI, £37k)
2010 – 2012	Research Fellowship Clare Hall College, Cambridge, UK
2009 – 2014	Royal Society University Research Fellowship (URF) (PI, £500k)
2004	Marie Curie Trainingsite Fellowship, January – April, Marseille, France

Publications and dissemination

156 publications in peer-reviewed journals (>12 000 citations), of which 30 as first author, h-index = 63 (ADS link)
79 publications in conference proceedings and non-refereed journals
66 talks at international conferences of which 27 invited, 7 reviews and 1 a conference summary
50 seminars and colloquia given at astronomical institutes around the world

Supervision of PhD students and postdoctoral fellows

2024 – present	Host La Caixa Junior Leader Fellow Guiliano Iorio, University of Barcelona, Spain
2023 – present	Host La Caixa INPhINIT PhD student Fotios Fronimos, University of Barcelona, Spain
2023 – present	Host Beatriu de Pinós fellow Sara Rastello, University of Barcelona, Spain
2021 – present	Supervisor PhD student Daniel Marin Pina, University of Barcelona, Spain
2018 – 2019	Employer PDRA Sofia Meneses-Goytia (ERC-Stg), University of Surrey, UK
2014 – 2019	Supervisor PhD student Ian Claydon (ERC-Stg), University of Surrey, UK
2017 – 2018	Employer PDRA Luis Martinez & Thomas de Boer (ERC-Stg), University of Surrey, UK
2014 – 2018	Employer PDRA Eduardo Balbinot (ERC-Stg), University of Surrey, UK
2014 – 2018	Supervisor PhD student Miklos Peuten (ERC-Stg), University of Surrey, UK
2016 – 2017	Co-supervisor PhD student Kearn Grisdale, University of Surrey, UK
2014 – 2017	Co-host Daphne Jackson Fellow Matt North, University of Surrey, UK
2014 – 2017	Employer PDRA Florent Renaud (ERC-Stg), University of Surrey, UK
2014 – 2017	Supervisor PhD students Filippo Contenta (ERC-Stg), University of Surrey, UK
2014 – 2017	Co-supervisor PhD student James Petts, University of Surrey, UK
2016	Employer PDRA Alice Zocchi (ERC-Stg), University of Surrey, UK
2013 – 2016	Employer PDRA Vincent Hénault-Brunet, University of Surrey, UK
2013 – 2016	Host Newton International Fellow Alice Zocchi, University of Surrey, UK
2011 – 2012	Co-supervisor of PhD student Sarah Smedley, University of Cambridge, UK
2010 – 2014	Supervisor PhD student Poul Alexander, University of Cambridge, UK

Teaching

2019 – present	Guest lecturer in master's course *Galactic Astronomy*, University of Barcelona, Spain
2016 – 2018	Master's course *Astrophysical Dynamics*, University of Surrey, UK
2014 – 2018	3$^{\rm d}$ year course *Research Techniques*, University of Surrey, UK
2013 – 2019	2$^{\rm nd}$ year course *Introduction to Astronomy*, University of Surrey, UK
July 2012	Faculty and scientific organiser of the 13$^{\rm th}$ Vatican Observatory Summer School
November 2011	Series of invited lectures on N-body integrations,Vilnius, Lithuania
October 2011	Part II undergraduate lecture on N-body integrations, University of Cambridge, UK
April 2009	Guest teacher in undergraduate course, University of Concepción, Chile
2005	Co-organiser *Galaxies* course, Utrecht University, the Netherlands

Conference organisation

2024	SOC *"EAS S33"* - Italy
2023	SOC *"2 in a million" - The interplay between binaries and clusters*, ESO Garching, Germany
2023	SOC *"MODEST 23"*, Northwestern, USA
2019	SOC *The dynamics of stellar clusters: simulations and observations at low and high z*, Lyon, France
2018	Co-chair *The formation of globular clusters at low and high redshift*, Sesto, Italy
2017	Co-chair *Globular clusters in the cosmological context*, Royal Society, Buckinghamshire, UK
2016	Co-chair collisional working group *Gaia Challenge* workshop IV, Stockholm, Sweden
2015	Co-chair collisional working group *Gaia Challenge* workshop III, Barcelona, Spain
2014	SOC *Stellar N-body dynamics* in honour of 80$^{\rm th}$ birthday of Sverre Aarseth, Sesto, Italy
2014	SOC *International summer institute for modelling in astrophysics (ISIMA)*, Toronto, Canada
2014	Co-chair collisional working group *Gaia Challenge* workshop II, Heidelberg, Germany
2013	Co-chair of *Gaia challenge* workshop I, Guildford, UK
2012	Co-chair of MODEST-12 *Modelling and observing dense stellar systems*, Kobe, Japan
2011	Co-chair of ESO workshop *Dynamics of low-mass stellar system*, Santiago, Chile

Involvement in ongoing observing/computational proposals

112.25W2	ESO Large Porgramme: *Binarity at LOw Metallicity (BLOeM)* (PI: Shenar, Bodensteiner)
106.21UN	ESO Public Spectroscopic Survey: *Stellar Clusters in the 4MOST footprint* (PI: Lucatello)
0102.D-0164	ESO: *Do globular clusters contain dark matter?* (PI: Gieles)
A/2018B/22	AAT: *The Origin of Globular Clusters: Kinematics & chemistry with AAOmega* (PIs: Lewis & Gieles)
2016153603	PRACE: *How do globular clusters form?* (PI: Renaud)
A/2017B/24	AAT: *Open clusters with HERMES* (PI: Da Silva)
188.B-3002	ESO: *Gaia-ESO Survey* (PIs: G. Gilmore & S. Randich)
182.D-0222	ESO Large Program: *VLT-FLAMES Tarantula Survey (VFTS)* (PI: C. Evans)

Public engagement

2020 – present	Podcasts, radio interviews, public lectures in Spanish and English
2024	Press release on runaway stars in R136
2021	Press release on black hole discovery in NGC1850
2021	Press release on black hole population in Palomar 5
2018	Press release on supermassive stars in globular clusters
2017	Press release on dark matter core in Eridanus II, see also CORDIS website
2016	Press release on discovery of black hole population in NGC6101
2014 – 2016	Regular outreach events with Surrey with the on-campus 16 inch telescope

Commissions of trust

2017 – present	Member of editorial board MNRAS
2016 – 2019	Diversity committee Royal Society
2010 – present	Regular grant reviewer for Royal Society, ERC, Polish National Academy, Conicyt (Chile)
2008 – present	Regular reviewer for MNRAS, A&A, ApJ, AJ, Nature, Science

Observing and instrumentation experience

2007 – 2009	2$^{\rm nd}$ Instrument Scientist of the ESO multi-object fibre spectrograph FLAMES
2006 – 2009	240 observing nights as support astronomer on the Very Large Telescope (VLT) on UT2 with UVES, FLAMES and FORS1 and on UT3 with VIMOS and VISIR
2001	30 nights at the Dutch 90cm telescope, La Silla, Chile

Languages

Dutch	Native speaker	English	Fluent
Spanish	Fluent	German	Fair

Refereed publications

156. *Globular cluster formation from inertial inflows: accreting extremely massive stars as the origin of abundance anomalies* **Gieles, M.**, Padoan, P., Charbonnel, C., Vink, J. S., & Ramírez-Galeano, L. (2025), arXiv:2501.12138.

155. *Interactions among binary black holes in star clusters: eccentric gravitational wave captures and triple formation* Marín Pina, D., **Gieles, M.**, Andrade, T., & Trani, A. A. (2025), arXiv:2501.02907.

154. *The Kinematics of 30 Milky Way Globular Clusters and the Multiple Stellar Populations within* Leitinger, E., Baumgardt, H., Cabrera-Ziri, I., Hilker, M., Carbajo-Hijarrubia, J., **Gieles, M.**, Husser, T.-O., & Kamann, S. (2024), arXiv:2410.02855.

153. *Using ^{26} Al to detect ongoing self-enrichment in young massive star clusters* Nowak, K., Krause, M. G. H., Siegert, T., Forbrich, J., Yates, R. M., Ramírez-Galeano, L., Charbonnel, C., & **Gieles, M.** (2024), Mon. Not. R. Astron. Soc., 534, 2499.

152. *Probing Populations of Dark Stellar Remnants in the Globular Clusters 47 Tuc and Terzan 5 Using Pulsar Timing* Smith, P. J., Hénault-Brunet, V., Dickson, N., **Gieles, M.**, & Baumgardt, H. (2024), Astrophys. J., 975, 268.

151. *Two waves of massive stars running away from the young cluster R136* Stoop, M., de Koter, A., Kaper, L., Brands, S., Portegies Zwart, S., Sana, H., Stoppa, F., **Gieles, M.**, Mahy, L., Shenar, T., et al. (2024), Nature, 634, 809.

150. *Binarity at LOw Metallicity (BLOeM): A spectroscopic VLT monitoring survey of massive stars in the SMC* Shenar, T., Bodensteiner, J., Sana, H., Crowther, P. A., Lennon, D. J., Abdul-Masih, M., Almeida, L. A., Backs, F., Berlanas, S. R., Bernini-Peron, M., et al. (2024), Astron. Astrophys., 690, A289.

149. *Capture of field stars by dark substructures* Peñarrubia, J., Errani, R., Walker, M. G., **Gieles, M.**, & Boekholt, T. C. N. (2024), Mon. Not. R. Astron. Soc., 533, 3263.

148. *Dynamical formation of Gaia BH3 in the progenitor globular cluster of the ED-2 stream* Marín Pina, D., Rastello, S., **Gieles, M.**, Kremer, K., Fitzgerald, L., & Rando Forastier, B. (2024), Astron. Astrophys., 688, L2.

147. *Multimass modelling of milky way globular clusters - II. Present-day black hole populations* Dickson, N., Smith, P. J., Hénault-Brunet, V., **Gieles, M.**, & Baumgardt, H. (2024), Mon. Not. R. Astron. Soc., 529, 331.

146. *Demographics of three-body binary black holes in star clusters: implications for gravitational waves* Marín Pina, D., & **Gieles, M.** (2024), Mon. Not. R. Astron. Soc., 527, 8369.

145. *The influence of black holes on the binary population of the globular cluster Palomar 5* Wang, L., **Gieles, M.**, Baumgardt, H., Li, C., Pang, X., & Tang, B. (2024), Mon. Not. R. Astron. Soc., 527, 7495.

144. *Binary Vision: The Mass Distribution of Merging Binary Black Holes via Iterative Density Estimation* Sadiq, J., Dent, T., & **Gieles, M.** (2024), Astrophys. J., 960, 65.

143. *A closer look at the binary content of NGC 1850* Saracino, S., Kamann, S., Bastian, N., **Gieles, M.**, Shenar, T., Reindl, N., Müller-Horn, J., Usher, C., Dreizler, S., & Hénault-Brunet, V. (2023), Mon. Not. R. Astron. Soc., 526, 299.

142. *Stellar-mass black holes in the Hyades star cluster?* Torniamenti, S., **Gieles, M.**, Penoyre, Z., Jerabkova, T., Wang, L., & Anders, F. (2023), Mon. Not. R. Astron. Soc., 524, 1965.

141. *The mass-loss rates of star clusters with stellar-mass black holes: implications for the globular cluster mass function* **Gieles, M.**, & Gnedin, O. Y. (2023), Mon. Not. R. Astron. Soc., 522, 5340.

140. *Multimass modelling of Milky Way globular clusters - I. Implications on their stellar initial mass function above 1 $M_\odot$* Dickson, N., Hénault-Brunet, V., Baumgardt, H., **Gieles, M.**, & Smith, P. J. (2023), Mon. Not. R. Astron. Soc., 522, 5320.

139. *The multiplicity fraction in 202 open clusters from Gaia* Donada, J., Anders, F., Jordi, C., Masana, E., **Gieles, M.**, Perren, G. I., Balaguer-Núñez, L., Castro-Ginard, A., Cantat-Gaudin, T., & Casamiquela, L. (2023), Astron. Astrophys., 675, A89.

138. *Coalescing black hole binaries from globular clusters: mass distributions and comparison to gravitational wave data from GWTC-3* Antonini, F., **Gieles, M.**, Dosopoulou, F., & Chattopadhyay, D. (2023), Mon. Not. R. Astron. Soc., 522, 466.

137. *Updated radial velocities and new constraints on the nature of the unseen source in NGC1850 BH1* Saracino, S., Shenar, T., Kamann, S., Bastian, N., **Gieles, M.**, Usher, C., Bodensteiner, J., Kochoska, A., Orosz, J. A., & Sana, H. (2023), Mon. Not. R. Astron. Soc., 521, 3162.

136. *N-enhancement in GN-z11: First evidence for supermassive stars nucleosynthesis in proto-globular clusters-like conditions at high redshift?* Charbonnel, C., Schaerer, D., Prantzos, N., Ramírez-Galeano, L., Fragos, T., Kuruvanthodi, A., Marques-Chaves, R., & **Gieles, M.** (2023), Astron. Astrophys., 673, L7.

135. *Dynamics in the outskirts of four Milky Way globular clusters: it's the tides that dominate* Wan, Z., Arnold, A. D., Oliver, W. H., Lewis, G. F., Baumgardt, H., **Gieles, M.**, Hénault-Brunet, V., de Boer, T., Balbinot, E., Da Costa, G., et al. (2023), Mon. Not. R. Astron. Soc., 519, 192.

134. *The VLT-FLAMES Tarantula Survey. Observational evidence for two distinct populations of massive runaway stars in 30 Doradus* Sana, H., Ramírez-Agudelo, O. H., Hénault-Brunet, V., Mahy, L., Almeida, L. A., de Koter, A., Bestenlehner, J. M., Evans, C. J., Langer, N., Schneider, F. R. N., et al. (2022), Astron. Astrophys., 668, L5.

133. *On the response of a star cluster to a tidal perturbation* Martinez-Medina, L. A., **Gieles, M.**, Gnedin, O. Y., & Li, H. (2022), Mon. Not. R. Astron. Soc., 516, 1237.

132. *An X-ray-quiet black hole born with a negligible kick in a massive binary within the Large Magellanic Cloud* Shenar, T., Sana, H., Mahy, L., El-Badry, K., Marchant, P., Langer, N., Hawcroft, C., Fabry, M., Sen, K., Almeida, L. A., et al. (2022), Nature Astronomy, 6, 1085.

131. *A black hole detected in the young massive LMC cluster NGC 1850* Saracino, S., Kamann, S., Guarcello, M. G., Usher, C., Bastian, N., Cabrera-Ziri, I., **Gieles, M.**, Dreizler, S., Da Costa, G. S., Husser, T.-O., & Hénault-Brunet, V. (2022), Mon. Not. R. Astron. Soc., 511, 2914.

130. *Weighing stars from birth to death: mass determination methods across the HRD* Serenelli, A., Weiss, A., Aerts, C., Angelou, G. C., Baroch, D., Bastian, N., Beck, P. G., Bergemann, M., Bestenlehner, J. M., Czekala, I., et al. (2021), Astron. Astrophys. Rev., 29, 4.

129. *A supra-massive population of stellar-mass black holes in the globular cluster Palomar 5* **Gieles, M.**, Erkal, D., Antonini, F., Balbinot, E., & Peñarrubia, J. (2021), Nature Astronomy, 5, 957.

128. *Haydn* Miglio, A., Girardi, L., Grundahl, F., Mosser, B., Bastian, N., Bragaglia, A., Brogaard, K., Buldgen, G., Chantereau, W., Chaplin, W., et al. (2021), Experimental Astronomy, 51, 963.

127. *Massive stars in extremely metal-poor galaxies: a window into the past* Garcia, M., Evans, C. J., Bestenlehner, J. M., Bouret, J. C., Castro, N., Cerviño, M., Fullerton, A. W., **Gieles, M.**, Herrero, A., de Koter, A., et al. (2021), Experimental Astronomy, 51, 887.

126. *MUSE narrow field mode observations of the central kinematics of M15* Usher, C., Kamann, S., **Gieles, M.**, Hénault-Brunet, V., Dalessandro, E., Balbinot, E., & Sollima, A. (2021), Mon. Not. R. Astron. Soc., 503, 1680.

125. *The dynamics of the globular cluster NGC 3201 out to the Jacobi radius* Wan, Z., Oliver, W. H., Baumgardt, H., Lewis, G. F., **Gieles, M.**, Hénault-Brunet, V., de Boer, T., Balbinot, E., Da Costa, G., & Mackey, D. (2021), Mon. Not. R. Astron. Soc., 502, 4513.

124. *The star cluster age function in the Galactic disc with Gaia DR2. Fewer old clusters and a low cluster formation efficiency* Anders, F., Cantat-Gaudin, T., Quadrino-Lodoso, I., **Gieles, M.**, Jordi, C., Castro-Ginard, A., & Balaguer-Núñez, L. (2021), Astron. Astrophys., 645, L2.

123. *Merger rate of black hole binaries from globular clusters: Theoretical error bars and comparison to gravitational wave data from GWTC-2* Antonini, F., & **Gieles, M.** (2020), Phys. Rev. D, 102, 123016.

122. *Star Clusters Near and Far; Tracing Star Formation Across Cosmic Time* Adamo, A., Zeidler, P., Kruijssen, J. M. D., Chevance, M., **Gieles, M.**, Calzetti, D., Charbonnel, C., Zinnecker, H., & Krause, M. G. H. (2020), Space Sci. Rev., 216, 69.

121. *The Physics of Star Cluster Formation and Evolution* Krause, M. G. H., Offner, S. S. R., Charbonnel, C., **Gieles, M.**, Klessen, R. S., Vázquez-Semadeni, E., Ballesteros-Paredes, J., Girichidis, P., Kruijssen, J. M. D., Ward, J. L., & Zinnecker, H. (2020), Space Sci. Rev., 216, 64.

120. *A closer look at the spur, blob, wiggle, and gaps in GD-1* de Boer, T. J. L., Erkal, D., & **Gieles, M.** (2020), Mon. Not. R. Astron. Soc., 494, 5315.

119. *Time-domain Study of the Young Massive Cluster Westerlund 2 with the Hubble Space Telescope. I* Sabbi, E., Gennaro, M., Anderson, J., Bajaj, V., Bastian, N., Gallagher, J. S., **Gieles, M.**, Lennon, D. J., Nota, A., Sahu, K. C., & Zeidler, P. (2020), Astrophys. J., 891, 182.

118. *Population synthesis of black hole binary mergers from star clusters* Antonini, F., & **Gieles, M.** (2020), Mon. Not. R. Astron. Soc., 492, 2936.

117. *On the black hole content and initial mass function of 47 Tuc* Hénault-Brunet, V., **Gieles, M.**, Strader, J., Peuten, M., Balbinot, E., & Douglas, K. E. K. (2020), Mon. Not. R. Astron. Soc., 491, 113.

116. *Modelling the effects of dark matter substructure on globular cluster evolution with the tidal approximation* Webb, J. J., Bovy, J., Carlberg, R. G., & **Gieles, M.** (2019), Mon. Not. R. Astron. Soc., 488, 5748.

115. *Globular clusters as probes of dark matter cusp-core transformations* Orkney, M. D. A., Read, J. I., Petts, J. A., & **Gieles, M.** (2019), Mon. Not. R. Astron. Soc., 488, 2977.

114. *Spherical models of star clusters with potential escapers* Claydon, I., **Gieles, M.**, Varri, A. L., Heggie, D. C., & Zocchi, A. (2019), Mon. Not. R. Astron. Soc., 487, 147.

113. *Black hole growth through hierarchical black hole mergers in dense star clusters: implications for gravitational wave detections* Antonini, F., **Gieles, M.**, & Gualandris, A. (2019), Mon. Not. R. Astron. Soc., 486, 5008.

112. *Globular cluster number density profiles using Gaia DR2* de Boer, T. J. L., **Gieles, M.**, Balbinot, E., Hénault-Brunet, V., Sollima, A., Watkins, L. L., & Claydon, I. (2019), Mon. Not. R. Astron. Soc., 485, 4906.

111. *The VLT-FLAMES Tarantula Survey. XXXI. Radial velocities and multiplicity constraints of red supergiant stars in 30 Doradus* Patrick, L. R., Lennon, D. J., Britavskiy, N., Evans, C. J., Sana, H., Taylor, W. D., Herrero, A., Almeida, L. A., Clark, J. S., **Gieles, M.**, et al. (2019), Astron. Astrophys., 624, A129.

110. *Linking the rotation of a cluster to the spins of its stars: the kinematics of NGC 6791 and NGC 6819 in 3D* Kamann, S., Bastian, N. J., **Gieles, M.**, Balbinot, E., & Hénault-Brunet, V. (2019), Mon. Not. R. Astron. Soc., 483, 2197.

109. *Mass modelling globular clusters in the Gaiaera: a method comparison using mock data from an N-body simulation of M 4* Hénault-Brunet, V., **Gieles, M.**, Sollima, A., Watkins, L. L., Zocchi, A., Claydon, I., Pancino, E., & Baumgardt, H. (2019), Mon. Not. R. Astron. Soc., 483, 1400.

108. *The effect of stellar-mass black holes on the central kinematics of ω Cen: a cautionary tale for IMBH interpretations* Zocchi, A., **Gieles, M.**, & Hénault-Brunet, V. (2019), Mon. Not. R. Astron. Soc., 482, 4713.

107. *Extending the globular cluster system-halo mass relation to the lowest galaxy masses* Forbes, D. A., Read, J. I., **Gieles, M.**, & Collins, M. L. M. (2018), Mon. Not. R. Astron. Soc., 481, 5592.

106. *From Giant H II regions and H II galaxies to globular clusters and compact dwarf ellipticals* Terlevich, E., Fernández-Arenas, D., Terlevich, R., **Gieles, M.**, Chávez, R., & González-Morán, A. L. (2018), Mon. Not. R. Astron. Soc., 481, 268.

105. *The VLT-FLAMES Tarantula Survey. XXIX. Massive star formation in the local 30 Doradus starburst* Schneider, F. R. N., Ramírez-Agudelo, O. H., Tramper, F., Bestenlehner, J. M., Castro, N., Sana, H., Evans, C. J., Sabín-Sanjulián, C., Simón-Díaz, S., Langer, N., et al. (2018), Astron. Astrophys., 618, A73.

104. *Concurrent formation of supermassive stars and globular clusters: implications for early self-enrichment* **Gieles, M.**, Charbonnel, C., Krause, M. G. H., Hénault-Brunet, V., Agertz, O., Lamers, H. J. G. L. M., Bastian, N., Gualandris, A., Zocchi, A., & Petts, J. A. (2018), Mon. Not. R. Astron. Soc., 478, 2461.

103. *Response to Comment on "An excess of massive stars in the local 30 Doradus starburst"* Schneider, F. R. N., Sana, H., Evans, C. J., Bestenlehner, J. M., Castro, N., Fossati, L., Gräfener, G., Langer, N., Ramírez-Agudelo, O. H., Sabín-Sanjulián, C., et al. (2018), Science, 361, aat7032.

102. *Probing dark matter with star clusters: a dark matter core in the ultra-faint dwarf Eridanus II* Contenta, F., Balbinot, E., Petts, J. A., Read, J. I., **Gieles, M.**, Collins, M. L. M., Peñarrubia, J., Delorme, M., & Gualandris, A. (2018), Mon. Not. R. Astron. Soc., 476, 3124.

101. *Erratum: A family of lowered isothermal models* **Gieles, M.**, & Zocchi, A. (2018), Mon. Not. R. Astron. Soc., 474, 3997.

100. *A clustered origin for isolated massive stars* Lucas, W. E., Rybak, M., Bonnell, I. A., & **Gieles, M.** (2018), Mon. Not. R. Astron. Soc., 474, 3582.

99. *Globular cluster formation and evolution in the context of cosmological galaxy assembly: open questions* Forbes, D. A., Bastian, N., **Gieles, M.**, Crain, R. A., Kruijssen, J. M. D., Larsen, S. S., Ploeckinger, S., Agertz, O., Trenti, M., Ferguson, A. M. N., Pfeffer, J., & Gnedin, O. Y. (2018), Proceedings of the Royal Society of London Series A, 474, 20170616.

98. *The devil is in the tails: the role of globular cluster mass evolution on stream properties* Balbinot, E., & **Gieles, M.** (2018), Mon. Not. R. Astron. Soc., 474, 2479.

97. *New insights into the origin and evolution of the old, metal-rich open cluster NGC 6791* Martinez-Medina, L. A., **Gieles, M.**, Pichardo, B., & Peimbert, A. (2018), Mon. Not. R. Astron. Soc., 474, 32.

96. *Mass models of NGC 6624 without an intermediate-mass black hole* **Gieles, M.**, Balbinot, E., Yaaqib, R. I. S. M., Hénault-Brunet, V., Zocchi, A., Peuten, M., & Jonker, P. G. (2018), Mon. Not. R. Astron. Soc., 473, 4832.

95. *An excess of massive stars in the local 30 Doradus starburst* Schneider, F. R. N., Sana, H., Evans, C. J., Bestenlehner, J. M., Castro, N., Fossati, L., Gräfener, G., Langer, N., Ramírez-Agudelo, O. H., Sabín-Sanjulián, C., et al. (2018), Science, 359, 69.

94. *Testing lowered isothermal models with direct N-body simulations of globular clusters - II. Multimass models* Peuten, M., Zocchi, A., **Gieles, M.**, & Hénault-Brunet, V. (2017), Mon. Not. R. Astron. Soc., 470, 2736.

93. *Radial anisotropy in ω Cen limiting the room for an intermediate-mass black hole* Zocchi, A., **Gieles, M.**, & Hénault-Brunet, V. (2017), Mon. Not. R. Astron. Soc., 468, 4429.

92. *The properties of energetically unbound stars in stellar clusters* Claydon, I., **Gieles, M.**, & Zocchi, A. (2017), Mon. Not. R. Astron. Soc., 466, 3937.

91. *The contribution of dissolving star clusters to the population of ultra faint objects in the outer halo of the Milky Way* Contenta, F., **Gieles, M.**, Balbinot, E., & Collins, M. L. M. (2017), Mon. Not. R. Astron. Soc., 466, 1741.

90. *The origin of the Milky Way globular clusters* Renaud, F., Agertz, O., & **Gieles, M.** (2017), Mon. Not. R. Astron. Soc., 465, 3622.

89. *The Tarantula Massive Binary Monitoring. I. Observational campaign and OB-type spectroscopic binaries* Almeida, L. A., Sana, H., Taylor, W., Barbá, R., Bonanos, A. Z., Crowther, P., Damineli, A., de Koter, A., de Mink, S. E., Evans, C. J., et al. (2017), Astron. Astrophys., 598, A84.

88. *If it does not kill them, it makes them stronger: collisional evolution of star clusters with tidal shocks* **Gieles, M.**, & Renaud, F. (2016), Mon. Not. R. Astron. Soc., 463, L103.

87. *A stellar-mass black hole population in the globular cluster NGC 6101?* Peuten, M., Zocchi, A., **Gieles, M.**, Gualandris, A., & Hénault-Brunet, V. (2016), Mon. Not. R. Astron. Soc., 462, 2333.

86. *Testing lowered isothermal models with direct N-body simulations of globular clusters* Zocchi, A., **Gieles, M.**, Hénault-Brunet, V., & Varri, A. L. (2016), Mon. Not. R. Astron. Soc., 462, 696.

85. *Properties of the cluster population of NGC 1566 and their implications* Hollyhead, K., Adamo, A., Bastian, N., **Gieles, M.**, & Ryon, J. E. (2016), Mon. Not. R. Astron. Soc., 460, 2087.

84. *No evidence for younger stellar generations within the intermediate-age massive clusters NGC 1783, NGC 1806 and NGC 411* Cabrera-Ziri, I., Niederhofer, F., Bastian, N., Rejkuba, M., Balbinot, E., Kerzendorf, W. E., Larsen, S. S., Mackey, A. D., Dalessandro, E., Mucciarelli, A., et al. (2016), Mon. Not. R. Astron. Soc., 459, 4218.

83. *A Hubble Space Telescope Study of the Enigmatic Milky Way Halo Globular Cluster Crater** Weisz, D. R., Koposov, S. E., Dolphin, A. E., Belokurov, V., **Gieles, M.**, Mateo, M. L., Olszewski, E. W., Sills, A., & Walker, M. G. (2016), Astrophys. J., 822, 32.

82. *Evolution of star clusters on eccentric orbits* Cai, M. X., **Gieles, M.**, Heggie, D. C., & Varri, A. L. (2016), Mon. Not. R. Astron. Soc., 455, 596.

81. *A family of lowered isothermal models* **Gieles, M.**, & Zocchi, A. (2015), Mon. Not. R. Astron. Soc., 454, 576.

80. *The initial conditions of observed star clusters - I. Method description and validation* Pijloo, J. T., Portegies Zwart, S. F., Alexander, P. E. R., **Gieles, M.**, Larsen, S. S., Groot, P. J., & Devecchi, B. (2015), Mon. Not. R. Astron. Soc., 453, 605.

79. *Biases in the determination of dynamical parameters of star clusters: today and in the Gaia era* Sollima, A., Baumgardt, H., Zocchi, A., Balbinot, E., **Gieles, M.**, Hénault-Brunet, V., & Varri, A. L. (2015), Mon. Not. R. Astron. Soc., 451, 2185.

78. *Multiple populations in globular clusters: the distinct kinematic imprints of different formation scenarios* Hénault-Brunet, V., **Gieles, M.**, Agertz, O., & Read, J. I. (2015), Mon. Not. R. Astron. Soc., 450, 1164.

77. *The effect of secular galactic growth on the evolution of star clusters* Renaud, F., & **Gieles, M.** (2015), Mon. Not. R. Astron. Soc., 449, 2734.

76. *A flexible method to evolve collisional systems and their tidal debris in external potentials* Renaud, F., & **Gieles, M.** (2015), Mon. Not. R. Astron. Soc., 448, 3416.

75. *Biases in the inferred mass-to-light ratio of globular clusters: no need for variations in the stellar mass function.* Shanahan, R. L., & **Gieles, M.** (2015), Mon. Not. R. Astron. Soc., 448, L94.

74. *The inefficiency of satellite accretion in forming extended star clusters.* Bianchini, P., Renaud, F., **Gieles, M.**, & Varri, A. L. (2015), Mon. Not. R. Astron. Soc., 447, L40.

73. *The effect of spatial resolution on optical and near-IR studies of stellar clusters: implications for the origin of the red excess* Bastian, N., Adamo, A., Schirmer, M., Hollyhead, K., Beletsky, Y., Carraro, G., Davies, B., **Gieles, M.**, & Silva-Villa, E. (2014), Mon. Not. R. Astron. Soc., 444, 3829.

72. *A prescription and fast code for the long-term evolution of star clusters - III. Unequal masses and stellar evolution* Alexander, P. E. R., **Gieles, M.**, Lamers, H. J. G. L. M., & Baumgardt, H. (2014), Mon. Not. R. Astron. Soc., 442, 1265.

71. *A prescription and fast code for the long-term evolution of star clusters - II. Unbalanced and core evolution* **Gieles, M.**, Alexander, P. E. R., Lamers, H. J. G. L. M., & Baumgardt, H. (2014), Mon. Not. R. Astron. Soc., 437, 916.

70. *Precession of the Sagittarius stream* Belokurov, V., Koposov, S. E., Evans, N. W., Peñarrubia, J., Irwin, M. J., Smith, M. C., Lewis, G. F., **Gieles, M.**, Wilkinson, M. I., Gilmore, G., Olszewski, E. W., & Niederste-Ostholt, M. (2014), Mon. Not. R. Astron. Soc., 437, 116.

69. *Early disc accretion as the origin of abundance anomalies in globular clusters* Bastian, N., Lamers, H. J. G. L. M., de Mink, S. E., Longmore, S. N., Goodwin, S. P., & **Gieles, M.** (2013), Mon. Not. R. Astron. Soc., 436, 2398.

68. *The evolution of the global stellar mass function of star clusters: an analytic description* Lamers, H. J. G. L. M., Baumgardt, H., & **Gieles, M.** (2013), Mon. Not. R. Astron. Soc., 433, 1378.

67. *Constraining the initial conditions of globular clusters using their radius distribution.* Alexander, P. E. R., & **Gieles, M.** (2013), Mon. Not. R. Astron. Soc., 432, L1.

66. *Search for associations containing young stars: chemical tagging IC 2391 and the Argus association* De Silva, G. M., D'Orazi, V., Melo, C., Torres, C. A. O., **Gieles, M.**, Quast, G. R., & Sterzik, M. (2013), Mon. Not. R. Astron. Soc., 431, 1005.

65. *The role of galaxy mergers on the evolution of star clusters.* Renaud, F., & **Gieles, M.** (2013), Mon. Not. R. Astron. Soc., 431, L83.

64. *The VLT-FLAMES Tarantula Survey. VIII. Multiplicity properties of the O-type star population* Sana, H., de Koter, A., de Mink, S. E., Dunstall, P. R., Evans, C. J., Hénault-Brunet, V., Maíz Apellániz, J., Ramírez-Agudelo, O. H., Taylor, W. D., Walborn, N. R., et al. (2013), Astron. Astrophys., 550, A107.

63. *Do all stars in the solar neighbourhood form in clusters? A cautionary note on the use of the distribution of surface densities* **Gieles, M.**, Moeckel, N., & Clarke, C. J. (2012), Mon. Not. R. Astron. Soc., 426, L11.

62. *The VLT-FLAMES Tarantula Survey. VII. A low velocity dispersion for the young massive cluster R136* Hénault-Brunet, V., Evans, C. J., Sana, H., **Gieles, M.**, Bastian, N., Maíz Apellániz, J., Markova, N., Taylor, W. D., Bressert, E., Crowther, P. A., & van Loon, J. T. (2012), Astron. Astrophys., 546, A73.

61. *The VLT-FLAMES Tarantula Survey. VI. Evidence for rotation of the young massive cluster R136* Hénault-Brunet, V., **Gieles, M.**, Evans, C. J., Sana, H., Bastian, N., Maíz Apellániz, J., Taylor, W. D., Markova, N., Bressert, E., de Koter, A., & van Loon, J. T. (2012), Astron. Astrophys., 545, L1.

60. *A Double Cluster at the Core of 30 Doradus* Sabbi, E., Lennon, D. J., **Gieles, M.**, de Mink, S. E., Walborn, N. R., Anderson, J., Bellini, A., Panagia, N., van der Marel, R., & Maíz Apellániz, J. (2012), Astrophys. J. Lett., 754, L37.

59. *Binary Interaction Dominates the Evolution of Massive Stars* Sana, H., de Mink, S. E., de Koter, A., Langer, N., Evans, C. J., **Gieles, M.**, Gosset, E., Izzard, R. G., Le Bouquin, J.-B., & Schneider, F. R. N. (2012), Science, 337, 444.

58. *A prescription and fast code for the long-term evolution of star clusters* Alexander, P. E. R., & **Gieles, M.** (2012), Mon. Not. R. Astron. Soc., 422, 3415.

57. *The VLT-FLAMES Tarantula Survey. IV. Candidates for isolated high-mass star formation in 30 Doradus* Bressert, E., Bastian, N., Evans, C. J., Sana, H., Hénault-Brunet, V., Goodwin, S. P., Parker, R. J., **Gieles, M.**, Bestenlehner, J. M., Vink, J. S., et al. (2012), Astron. Astrophys., 542, A49.

56. *The Sagittarius Streams in the Southern Galactic Hemisphere* Koposov, S. E., Belokurov, V., Evans, N. W., Gilmore, G., **Gieles, M.**, Irwin, M. J., Lewis, G. F., Niederste-Ostholt, M., Peñarrubia, J., Smith, M. C., et al. (2012), Astrophys. J., 750, 80.

55. *Spectroscopic constraints on the form of the stellar cluster mass function* Bastian, N., Konstantopoulos, I. S., Trancho, G., Weisz, D. R., Larsen, S. S., Fouesneau, M., Kaschinski, C. B., & **Gieles, M.** (2012), Astron. Astrophys., 541, A25.

54. *Stellar clusters in M83: formation, evolution, disruption and the influence of the environment* Bastian, N., Adamo, A., **Gieles, M.**, Silva-Villa, E., Lamers, H. J. G. L. M., Larsen, S. S., Smith, L. J., Konstantopoulos, I. S., & Zackrisson, E. (2012), Mon. Not. R. Astron. Soc., 419, 2606.

53. *Outer density profiles of 19 Galactic globular clusters from deep and wide-field imaging* Carballo-Bello, J. A., **Gieles, M.**, Sollima, A., Koposov, S., Martínez-Delgado, D., & Peñarrubia, J. (2012), Mon. Not. R. Astron. Soc., 419, 14.

52. *Evolution of star clusters in arbitrary tidal fields* Renaud, F., **Gieles, M.**, & Boily, C. M. (2011), Mon. Not. R. Astron. Soc., 418, 759.

51. *Evidence for environmentally dependent cluster disruption in M83* Bastian, N., Adamo, A., **Gieles, M.**, Lamers, H. J. G. L. M., Larsen, S. S., Silva-Villa, E., Smith, L. J., Kotulla, R., Konstantopoulos, I. S., Trancho, G., & Zackrisson, E. (2011), Mon. Not. R. Astron. Soc., 417, L6.

50. *The life cycle of star clusters in a tidal field* **Gieles, M.**, Heggie, D. C., & Zhao, H. (2011), Mon. Not. R. Astron. Soc., 413, 2509.

49. *The VLT-FLAMES Tarantula Survey. I. Introduction and observational overview* Evans, C. J., Taylor, W. D., Hénault-Brunet, V., Sana, H., de Koter, A., Simón-Díaz, S., Carraro, G., Bagnoli, T., Bastian, N., Bestenlehner, J. M., et al. (2011), Astron. Astrophys., 530, A108.

48. *The evolution of stellar structures in dwarf galaxies* Bastian, N., Weisz, D. R., Skillman, E. D., McQuinn, K. B. W., Dolphin, A. E., Gutermuth, R. A., Cannon, J. M., Ercolano, B., **Gieles, M.**, Kennicutt, R. C., & Walter, F. (2011), Mon. Not. R. Astron. Soc., 412, 1539.

47. *GLIMPSE-CO1: the most massive intermediate-age stellar cluster in the Galaxy* Davies, B., Bastian, N., **Gieles, M.**, Seth, A. C., Mengel, S., & Konstantopoulos, I. S. (2011), Mon. Not. R. Astron. Soc., 411, 1386.

46. *The distinction between star clusters and associations* **Gieles, M.**, & Portegies Zwart, S. F. (2011), Mon. Not. R. Astron. Soc., 410, L6.

45. *The VLT-FLAMES Tarantula Survey* Markova, N., Evans, C. J., Bastian, N., Beletsky, Y., Bestenlehner, J., Brott, I., Cantiello, M., Carraro, G., Clark, J. S., Crowther, P. A., et al. (2011), Bulgarian Astronomical Journal, 15, 29.

44. *The VLT-FLAMES Tarantula Survey* Taylor, W. D., Evans, C. J., Hénault-Brunet, V., Bastian, N., Beletsky, Y., Bestenlehner, J., Brott, I., Cantiello, M., Carraro, G., Clark, J. S., et al. (2011), Bulletin de la Societe Royale des Sciences de Liege, 80, 430.

43. *A Project to Study Stellar and Gas Kinematics in 30 Dor with the VLT-FLAMES Tarantula Survey* Hénault-Brunet, V., Evans, C. J., Taylor, W. D., **Gieles, M.**, & VLT-FLAMES Tarantula Consortium (2011), Bulletin de la Societe Royale des Sciences de Liege, 80, 376.

42. *Estudio en el infrarrojo cercano de agrupaciones estelares en M 83* Baume, G., Feinstein, C., Beletsky, Y., Carraro, G., **Gieles, M.**, Schirmer, M., Adamo, A., Bastian, N., & Davies, B. (2011), Boletin de la Asociacion Argentina de Astronomia La Plata Argentina, 54, 207.

41. *Mass-loss rates and the mass evolution of star clusters* Lamers, H. J. G. L. M., Baumgardt, H., & **Gieles, M.** (2010), Mon. Not. R. Astron. Soc., 409, 305.

40. *The tidal tails of the ultrafaint globular cluster Palomar 1* Niederste-Ostholt, M., Belokurov, V., Evans, N. W., Koposov, S., **Gieles, M.**, & Irwin, M. J. (2010), Mon. Not. R. Astron. Soc., 408, L66.

39. *On the mass-radius relation of hot stellar systems* **Gieles, M.**, Baumgardt, H., Heggie, D. C., & Lamers, H. J. G. L. M. (2010), Mon. Not. R. Astron. Soc., 408, L16.

38. *Young Massive Star Clusters* Portegies Zwart, S. F., McMillan, S. L. W., & **Gieles, M.** (2010), Annu. Rev. Astron. Astrophys., 48, 431.

37. *VLT-MAD observations of the core of 30 Doradus* Campbell, M. A., Evans, C. J., Mackey, A. D., **Gieles, M.**, Alves, J., Ascenso, J., Bastian, N., & Longmore, A. J. (2010), Mon. Not. R. Astron. Soc., 405, 421.

36. *A MAD view of Trumpler 14* Sana, H., Momany, Y., **Gieles, M.**, Carraro, G., Beletsky, Y., Ivanov, V. D., de Silva, G., & James, G. (2010), Astron. Astrophys., 515, A26.

35. *On the velocity dispersion of young star clusters: super-virial or binaries?* **Gieles, M.**, Sana, H., & Portegies Zwart, S. F. (2010), Mon. Not. R. Astron. Soc., 402, 1750.

34. *Evidence for two populations of Galactic globular clusters from the ratio of their half-mass to Jacobi radii* Baumgardt, H., Parmentier, G., **Gieles, M.**, & Vesperini, E. (2010), Mon. Not. R. Astron. Soc., 401, 1832.

33. *What determines the mass of the most massive star cluster in a galaxy: statistics, physics or disruption?* **Gieles, M.** (2009), Astrophys. Space Sci., 324, 299.

32. *Hierarchical star formation in M33: properties of the star-forming regions* Bastian, N., Ercolano, B., & **Gieles, M.** (2009), Astrophys. Space Sci., 324, 293.

31. *The early evolution of the star cluster mass function* **Gieles, M.** (2009), Mon. Not. R. Astron. Soc., 394, 2113.

30. *The spatial evolution of stellar structures in the Large Magellanic Cloud* Bastian, N., **Gieles, M.**, Ercolano, B., & Gutermuth, R. (2009), Mon. Not. R. Astron. Soc., 392, 868.

29. *Evolution of stellar structure in the Small Magellanic Cloud* **Gieles, M.**, Bastian, N., & Ercolano, B. (2008), Mon. Not. R. Astron. Soc., 391, L93.

28. *Mass segregation in young star clusters - can it be detected from the integrated photometric properties?* Gaburov, E., & **Gieles, M.** (2008), Mon. Not. R. Astron. Soc., 391, 190.

27. *Lifetimes of tidally limited star clusters with different radii* **Gieles, M.**, & Baumgardt, H. (2008), Mon. Not. R. Astron. Soc., 389, L28.

26. *The early expansion of cluster cores* Bastian, N., **Gieles, M.**, Goodwin, S. P., Trancho, G., Smith, L. J., Konstantopoulos, I., & Efremov, Y. (2008), Mon. Not. R. Astron. Soc., 389, 223.

25. *ACS imaging of star clusters in M 51. II. The luminosity function and mass function across the disk* Haas, M. R., **Gieles, M.**, Scheepmaker, R. A., Larsen, S. S., & Lamers, H. J. G. L. M. (2008), Astron. Astrophys., 487, 937.

24. *An alternative method to study star cluster disruption* **Gieles, M.**, & Bastian, N. (2008), Astron. Astrophys., 482, 165.

23. *On the Interpretation of the Age Distribution of Star Clusters in the Small Magellanic Cloud* **Gieles, M.**, Lamers, H. J. G. L. M., & Portegies Zwart, S. F. (2007), Astrophys. J., 668, 268.

22. *The Young Cluster Population of M82 Region B* Smith, L. J., Bastian, N., Konstantopoulos, I. S., Gallagher, J. S., **Gieles, M.**, de Grijs, R., Larsen, S. S., O'Connell, R. W., & Westmoquette, M. S. (2007), Astrophys. J. Lett., 667, L145.

21. *Hierarchical star formation in M33: fundamental properties of the star-forming regions* Bastian, N., Ercolano, B., **Gieles, M.**, Rosolowsky, E., Scheepmaker, R. A., Gutermuth, R., & Efremov, Y. (2007), Mon. Not. R. Astron. Soc., 379, 1302.

20. *ACS imaging of star clusters in M 51. I. Identification and radius distribution* Scheepmaker, R. A., Haas, M. R., **Gieles, M.**, Bastian, N., Larsen, S. S., & Lamers, H. J. G. L. M. (2007), Astron. Astrophys., 469, 925.

19. *The effect of spiral arm passages on the evolution of stellar clusters* **Gieles, M.**, Athanassoula, E., & Portegies Zwart, S. F. (2007), Mon. Not. R. Astron. Soc., 376, 809.

18. *Star clusters* **Gieles, M.** (2006), Ph.D. Thesis,.

17. *Star cluster disruption by giant molecular clouds* **Gieles, M.**, Portegies Zwart, S. F., Baumgardt, H., Athanassoula, E., Lamers, H. J. G. L. M., Sipior, M., & Leenaarts, J. (2006), Mon. Not. R. Astron. Soc., 371, 793.

16. *Clusters in the solar neighbourhood: how are they destroyed?* Lamers, H. J. G. L. M., & **Gieles, M.** (2006), Astron. Astrophys., 455, L17.

15. *Accurate photometry of extended spherically symmetric sources* Anders, P., **Gieles, M.**, & de Grijs, R. (2006), Astron. Astrophys., 451, 375.

14. *The luminosity function of young star clusters: implications for the maximum mass and luminosity of clusters* **Gieles, M.**, Larsen, S. S., Bastian, N., & Stein, I. T. (2006), Astron. Astrophys., 450, 129.

13. *Observational evidence for a truncation of the star cluster initial mass function at the high mass end* **Gieles, M.**, Larsen, S. S., Scheepmaker, R. A., Bastian, N., Haas, M. R., & Lamers, H. J. G. L. M. (2006), Astron. Astrophys., 446, L9.

12. *Star clusters* **Gieles, M.** (2006), Ph.D. Thesis,.

11. *Hierarchical star formation in M 51: star/cluster complexes* Bastian, N., **Gieles, M.**, Efremov, Y. N., & Lamers, H. J. G. L. M. (2005), Astron. Astrophys., 443, 79.

10. *The star cluster population of M 51. III. Cluster disruption and formation history* **Gieles, M.**, Bastian, N., Lamers, H. J. G. L. M., & Mout, J. N. (2005), Astron. Astrophys., 441, 949.

9. *An analytical description of the disruption of star clusters in tidal fields with an application to Galactic open clusters* Lamers, H. J. G. L. M., **Gieles, M.**, Bastian, N., Baumgardt, H., Kharchenko, N. V., & Portegies Zwart, S. (2005), Astron. Astrophys., 441, 117.

8. *The star cluster population of M 51. II. Age distribution and relations among the derived parameters* Bastian, N., **Gieles, M.**, Lamers, H. J. G. L. M., Scheepmaker, R. A., & de Grijs, R. (2005), Astron. Astrophys., 431, 905.

7. *Disruption time scales of star clusters in different galaxies* Lamers, H. J. G. L. M., **Gieles, M.**, & Portegies Zwart, S. F. (2005), Astron. Astrophys., 429, 173.

6. *New type of brightness variations of the colliding wind WO4 + O5((f)) binary WR 30a* Paardekooper, S. J., van der Hucht, K. A., van Genderen, A. M., Brogt, E., **Gieles, M.**, & Meijerink, R. (2003), Astron. Astrophys., 404, L29.

5. *Discovery of Another Mira Variable in the Field of V4641 Sgr* Orosz, J. A., **Gieles, M.**, Bailyn, C. D., & Tourtellotte, S. W. (2003), Information Bulletin on Variable Stars, 5384, 1.

4. *Monte Carlo simulations of pinhole imaging accelerated by kernel-based forced detection* **Gieles, M.**, de Jong, H. W. A. M., & Beekman, F. J. (2002), Physics in Medicine and Biology, 47, 1853.

3. *Optical monitoring of GM Sgr and discovery of a Mira and a short-period pulsator* **Gieles, M.**, Orosz, J. A., Hulleman, F., Brogt, E., Bailyn, C. D., & Garcia, M. R. (2002), Information Bulletin on Variable Stars, 5291, 1.

2. *Discovery of four close binary stars in Sagittarius* **Gieles, M.**, Orosz, J. A., Hulleman, F., Brogt, E., Bailyn, C. D., & Garcia, M. R. (2002), Information Bulletin on Variable Stars, 5289, 1.

1. *Ten new semi-regular variables in Sagittarius* **Gieles, M.**, Orosz, J. A., Hulleman, F., Brogt, E., Bailyn, C. D., & Garcia, M. R. (2002), Information Bulletin on Variable Stars, 5274, 1.

Proceedings and non-refereed publications

79. *VizieR Online Data Catalog: Binarity at LOw Metallicity (BLOeM). I. (Shenar+, 2024)* Shenar, T., Bodensteiner, J., Sana, H., Crowther, P. A., Lennon, D. J., Abdul-Masih, M., Almeida, L. A., Backs, F., Berlanas, S. R., Bernini-Peron, M., et al. (2024), VizieR Online Data Catalog, 369, J/A+A/690/A289.

78. *Binary-single interactions with different mass ratios* Rando Forastier, B., Marín Pina, D., **Gieles, M.**, Portegies Zwart, S., & Antonini, F. (2024), arXiv:2405.16999.

77. *Stellar streams from black hole-rich star clusters* Roberts, D., **Gieles, M.**, Erkal, D., & Sanders, J. L. (2024), arXiv:2402.06393.

76. *HRMOS White Paper: Science Motivation* Magrini, L., Bensby, T., Brucalassi, A., Randich, S., Jeffries, R., de Silva, G., Skuladottir, A., Smiljanic, R., Gonzalez, O., Hill, V., et al. (2023), arXiv:2312.08270.

75. *Exploring the influence of black holes on binary populations in Pal 5 globular cluster* Wang, L., **Gieles, M.**, Baumgardt, H., Li, C., Pang, X., & Tang, B. (2023), Two in a Million - The Interplay Between Binaries and Star Clusters, 27.

74. *Dynamical BBH formation and disruption: implications for gravitational waves* Marín Pina, D., & **Gieles, M.** (2023), Two in a Million - The Interplay Between Binaries and Star Clusters, 22.

73. *The evolution of the globular cluster mass function: The role of stellar-mass black holes* **Gieles, M.** (2023), Two in a Million - The Interplay Between Binaries and Star Clusters, 21.

72. *VizieR Online Data Catalog: Multiplicity fractions in Gaia open clusters (Donada+, 2023)* Donada, J., Anders, F., Jordi, C., Masana, E., **Gieles, M.**, Perren, G. I., Balaguer-Nunez, L., Castro-Ginard, A., Cantat-Gaudin, T., & Casamiquela, L. (2023), VizieR Online Data Catalog, 367, J/A+A/675/A89.

71. *Stellar Clusters in 4MOST* Lucatello, S., Bragaglia, A., Vallenari, A., Cantat-Gaudin, T., Kuzma, P., Guarcello, M. G., Spina, L., Aguado, D., Carrera, R., Castro-Ginard, A., et al. (2023), The Messenger, 190, 13.

70. *VizieR Online Data Catalog: GC number density profiles using Gaia DR2 (de Boer+, 2019)* de Boer, T. J. L., **Gieles, M.**, Balbinot, E., Henault-Brunet, V., Sollima, A., Watkins, L. L., & Claydon, I. (2022), VizieR Online Data Catalog, 748, J/MNRAS/485/4906.

69. *VizieR Online Data Catalog: Light curve for VFTS 243 (Shenar+, 2022)* Shenar, T., Sana, H., Mahy, L., El-Badry, K., Marchant, P., Langer, N., Hawcroft, C., Fabry, M., Sen, K., Almeida, L. A., et al. (2022), VizieR Online Data Catalog (other), 0610, J/other/NatAs/6.

68. *VizieR Online Data Catalog: Orbital parameters of globular clusters (Balbinot+, 2018)* Balbinot, E., & **Gieles, M.** (2021), VizieR Online Data Catalog, 747, J/MNRAS/474/2479.

67. *The VLT-FLAMES Tarantula Survey* Evans, C., Lennon, D., Langer, N., Almeida, L., Bartlett, E., Bastian, N., Bestenlehner, J., Britavskiy, N., Castro, N., Clark, S., et al. (2020), The Messenger, 181, 22.

66. *Reanalysing the Galactic open-cluster population in light of Gaia DR2* Anders, F., Cantat-Gaudin, T., Castro-Ginard, A., Jordi, C., **Gieles, M.**, Quadrino-Lodoso, I., & Balaguer-Núñez, L. (2020), XIV.0 Scientific Meeting (virtual) of the Spanish Astronomical Society, 114.

65. *MOONS: The New Multi-Object Spectrograph for the VLT* Cirasuolo, M., Fairley, A., Rees, P., Gonzalez, O. A., Taylor, W., Maiolino, R., Afonso, J., Evans, C., Flores, H., Lilly, S., et al. (2020), The Messenger, 180, 10.

64. *Supermassive stars as the origin of the multiple populations in globular clusters* **Gieles, M.**, & Charbonnel, C. (2020), Star Clusters: From the Milky Way to the Early Universe, 351, 297.

63. *A new view of the GD-1 stream using Gaia DR2* de Boer, T., **Gieles, M.**, & Erkal, D. (2020), AAS, 235, 336.07.

62. *Massive stars in extremely metal-poor galaxies: A window into the past* Garcia, M., Evans, C. J., Bestenlehner, J. M., Bouret, J. C., Castro, N., Cerviño, M., Fullerton, A. W., **Gieles, M.**, Herrero, A., de Koter, A., et al. (2019), arXiv:1908.04687.

61. *The Detailed Science Case for the Maunakea Spectroscopic Explorer, 2019 edition* The MSE Science Team, Babusiaux, C., Bergemann, M., Burgasser, A., Ellison, S., Haggard, D., Huber, D., Kaplinghat, M., Li, T., Marshall, J., et al. (2019), arXiv:1904.04907.

60. *VizieR Online Data Catalog: 30 Dor red supergiant stars radial velocities (Patrick+, 2019)* Patrick, L. R., Lennon, D. J., Britavskiy, N., Evans, C. J., Sana, H., Taylor, W. D., Herrero, A., Almeida, L. A., Clark, J. S., **Gieles, M.**, et al. (2019), VizieR Online Data Catalog, 362, J/A+A/624/A129.

59. *Stellar Astrophysics and Exoplanet Science with the Maunakea Spectroscopic Explorer (MSE)* Bergemann, M., Huber, D., Adibekyan, V., Angelou, G., Barría, D., Beers, T. C., Beck, P. G., Bellinger, E. P., Bestenlehner, J. M., Bitsch, B., et al. (2019), arXiv:1903.03157.

58. *VizieR Online Data Catalog: Massive stars in 30 Dor (Schneider+, 2018)* Schneider, F. R. N., Sana, H., Evans, C. J., Bestenlehner, J. M., Castro, N., Fossati, L., Grafener, G., Langer, N., Ramirez-Agudelo, O. H., Sabin-Sanjulian, C., et al. (2018), VizieR Online Data Catalog (other), 0210, J/other/Sci/359.

57. *LIMEPY: Lowered Isothermal Model Explorer in PYthon* **Gieles, M.**, & Zocchi, A. (2017), Astrophysics Source Code Library, ascl:1710.023.

56. *VizieR Online Data Catalog: OB-type spectroscopic binaries (Almeida+, 2017)* Almeida, L. A., Sana, H., Taylor, W., Barba, R., Bonanos, A. Z., Crowther, P., Damineli, A., de Koter, A., de Mink, S. E., Evans, C. J., et al. (2017), VizieR Online Data Catalog, 359, J/A+A/598/A84.

55. *Inverting the dynamical evolution of globular clusters: clues to their origin* **Gieles, M.**, & Alexander, P. (2017), Formation, Evolution, and Survival of Massive Star Clusters, 316, 214.

54. *The primordial binary fraction in the young massive cluster Westerlund 2* Sabbi, E., Anderson, J., Bastian, N., Gallagher, J. S., **Gieles, M.**, Lennon, D. J., Nota, A., & Sahu, K. C. (2016), HST Proposal, 14807.

53. *On the uniqueness of kinematical signatures of intermediate-mass black holes in globular clusters* Zocchi, A., **Gieles, M.**, & Hénault-Brunet, V. (2016), Star Clusters and Black Holes in Galaxies across Cosmic Time, 312, 197.

52. *The OB-runaways of R136: a dynamical fingerprint of massive star formation?* North, M., Gualandris, A., **Gieles, M.**, & Hénault-Brunet, V. (2016), Mem. Soc. Astron. Italiana, 87, 695.

51. *Inverting the dynamical evolution of globular clusters: clues to their origin* **Gieles, M.**, & Alexander, P. (2015), arXiv:1512.01487.

50. *Inverting the dynamical evolution problem: clues to the origin of old globular clusters* **Gieles, M.** (2015), IAU General Assembly, 29, 2255135.

49. *The initial conditions of observed star clusters* Tjibaria Pijloo, J., Portegies Zwart, S., Alexander, P., **Gieles, M.**, Larsen, S., Groot, P., & Devecchi, B. (2015), IAU General Assembly, 29, 2253913.

48. *Explaining the flattening of velocity dispersion in globular clusters using Newtonian dynamics* Claydon, I., **Gieles, M.**, & Zocchi, A. (2015), IAU General Assembly, 29, 2253013.

47. *A Scenario for Multiple Populations Within Globular Clusters Motivated by Observations of YMCs* Bastian, N., Lamers, H. J. G. L. M., de Mink, S. E., Longmore, S. N., Goodwin, S. P., & **Gieles, M.** (2014), Massive Young Star Clusters Near and Far: From the Milky Way to Reionization, 141.

46. *VizieR Online Data Catalog: IC 2391 and Argus young stars (de Silva+, 2013)* de Silva, G. M., D'Orazi, V., Melo, C., Torres, C. A. O., **Gieles, M.**, Quast, G. R., & Sterzik, M. (2014), VizieR Online Data Catalog, 743, J/MNRAS/431/1005.

45. *Interacting Star Clusters* **Gieles, M.** (2013), Massive Stars: From alpha to Omega, 7.

44. *VizieR Online Data Catalog: RV catalogue of O stars in 30 Doradus (Sana+, 2013)* Sana, H., de Koter, A., de Mink, S. E., Dunstall, P. R., Evans, C. J., Henault-Brunet, V., Maíz Apellániz, J., Ramirez-Agudelo, O. H., Taylor, W. D., Walborn, N. R., et al. (2013), VizieR Online Data Catalog, 355, J/A+A/550/A107.

43. *The mass and radius evolution of globular clusters in tidal fields* **Gieles, M.** (2013), Mem. Soc. Astron. Italiana, 84, 148.

42. *Mass Loss of Stars in Star Clusters: an Energy Source for Dynamical Evolution* **Gieles, M.** (2013), 370 Years of Astronomy in Utrecht, 470, 339.

41. *Multiplicity of massive O stars and evolutionary implications* Sana, H., de Mink, S. E., de Koter, A., Langer, N., Evans, C. J., **Gieles, M.**, Gosset, E., Izzard, R. G., Le Bouquin, J.-B., & Schneider, F. R. N. (2013), 370 Years of Astronomy in Utrecht, 470, 141.

40. *EMACSS: Evolve Me A Cluster of StarS* Alexander, P. E. R., & **Gieles, M.** (2012), Astrophysics Source Code Library, ascl:1203.006.

39. *Dynamical Expansion of Star Clusters* **Gieles, M.** (2012), Star Clusters in the Era of Large Surveys, 29, 241.

38. *VizieR Online Data Catalog: Catalogue of stellar cluster properties in M83 (Bastian+, 2011)* Bastian, N., Adamo, A., **Gieles, M.**, Lamers, H. J. G. L. M., Larsen, S. S., Silva-Villa, E., Smith, L. J., Kotulla, R., Konstantopoulos, I. S., Trancho, G., & Zackrisson, E. (2011), VizieR Online Data Catalog, 741, J/MNRAS/417/L6.

37. *VizieR Online Data Catalog: Ages of stars in dwarf galaxies (Bastian+, 2011)* Bastian, N., Weisz, D. R., Skillman, E. D., McQuinn, K. B. W., Dolphin, A. E., Gutermuth, R. A., Cannon, J. M., Ercolano, B., **Gieles, M.**, Kennicutt, R. C., & Walter, F. (2011), VizieR Online Data Catalog, 741, J/MNRAS/412/1539.

36. *VizieR Online Data Catalog: VLT-FLAMES Tarantula Survey (Evans+, 2011)* Evans, C. J., Taylor, W. D., Henault-Brunet, V., Sana, H., de Koter, A., Simon-Diaz, S., Carraro, G., Bagnoli, T., Bastian, N., Bestenlehner, J. M., et al. (2011), VizieR Online Data Catalog, 353, J/A+A/530/A108.

35. *The VLT FLAMES Tarantula Survey* Evans, C., Taylor, W., Sana, H., Hénault-Brunet, V., Bagnoli, T., Bastian, N., Bestenlehner, J., Bonanos, A., Bressert, E., Brott, I., et al. (2011), The Messenger, 145, 33.

34. *The VLT-FLAMES Tarantula survey* Lennon, D. J., Evans, C. J., Bastian, N., Beletsky, Y., Brott, I., Cantiello, M., Carraro, G., Clark, J. S., Crowther, P. A., de Koter, A., et al. (2011), Active OB Stars: Structure, Evolution, Mass Loss, and Critical Limits, 272, 296.

33. *Report on the ESO Workshop "Dynamics of Low-mass Stellar Systems: From Star Clusters to Dwarf Galaxies"* Mieske, S., & **Gieles, M.** (2011), The Messenger, 144, 44.

32. *Dynamical Evolution of Stellar Clusters* **Gieles, M.** (2011), Stellar Clusters & Associations: A RIA Workshop on Gaia, 118.

31. *Basic Tools for Studies on the Formation and Disruption of Star Clusters: The Luminosity Function* **Gieles, M.** (2010), Galaxy Wars: Stellar Populations and Star Formation in Interacting Galaxies, 423, 123.

30. *VizieR Online Data Catalog: H and Ks photometry of Trumpler 14 (Sana+, 2010)* Sana, H., Momany, Y., **Gieles, M.**, Carraro, G., Beletsky, Y., Ivanov, V. D., de Silva, G., & James, G. (2010), VizieR Online Data Catalog, 351, J/A+A/515/A26.

29. *Constraining star cluster disruption mechanisms* Konstantopoulos, I. S., Bastian, N., **Gieles, M.**, & Lamers, H. J. G. L. M. (2010), Star Clusters: Basic Galactic Building Blocks Throughout Time and Space, 266, 433.

28. *Star cluster disruption* **Gieles, M.** (2010), Star Clusters: Basic Galactic Building Blocks Throughout Time and Space, 266, 69.

27. *The VLT-FLAMES Tarantula Survey* Evans, C. J., Bastian, N., Beletsky, Y., Brott, I., Cantiello, M., Clark, J. S., Crowther, P. A., de Koter, A., de Mink, S. E., Dufton, P. L., et al. (2010), Star Clusters: Basic Galactic Building Blocks Throughout Time and Space, 266, 35.

26. *The spatial evolution of stellar structures in the LMC/SMC* Bastian, N., **Gieles, M.**, Ercolano, B., & Gutermuth, R. (2009), The Magellanic System: Stars, Gas, and Galaxies, 256, 45.

25. *The Effect of Giant Molecular Clouds on Star Clusters* **Gieles, M.**, Portegies Zwart, S. F., & Athanassoula, E. (2009), Globular Clusters - Guides to Galaxies, 375.

24. *The Radii of Thousands of Star Clusters in M51 with HST/ACS* Scheepmaker, R. A., **Gieles, M.**, Haas, M. R., Bastian, N., & Larsen, S. S. (2009), Globular Clusters - Guides to Galaxies, 103.

23. *The Maximum Mass of Star Clusters* **Gieles, M.**, Larsen, S. S., Haas, M. R., Scheepmaker, R. A., & Bastian, N. (2009), Globular Clusters - Guides to Galaxies, 63.

22. *Detector Upgrade for FLAMES: GIRAFFE Gets Red Eyes* Melo, C., Pasquini, L., Downing, M., Deiries, S., Naef, D., Hanuschik, R., Palsa, R., Castillo, R., Peña, E., Bendek, E., & **Gieles, M.** (2008), The Messenger, 133, 17.

21. *Imaging the dense stellar cluster R136 with VLT-MAD* Campbell, M. A., Evans, C. J., Ascenso, J., Longmore, A. J., Kolb, J., **Gieles, M.**, & Alves, J. (2008), Proc. SPIE, 7015, 70152C.

20. *Detector upgrade for FLAMES: GIRAFFE gets red eyes* Melo, C., Downing, M., Jorden, P., Pasquini, L., Deiries, S., Kelt, A., Naef, D., Hanuschik, R., Palsa, R., Castillo, R., et al. (2008), Proc. SPIE, 7014, 70143B.

19. *Hawk-I - First Results from Science Verification* Kissler-Patig, M., Fontana, A., Venemans, B., Kneib, J.-P., Doherty, M., Lidman, C., Kuntschner, H., Norris, M., Larsen, S., **Gieles, M.**, et al. (2008), The Messenger, 132, 7.

18. *Conference Summary: Mass Loss from Stellar Clusters* **Gieles, M.** (2008), Mass Loss from Stars and the Evolution of Stellar Clusters, 388, 437.

17. *Thousands of Star Clusters in M51 with HST/ACS* Scheepmaker, R. A., **Gieles, M.**, Haas, M. R., Bastian, N., & Lamers, H. J. G. L. M. (2008), Mass Loss from Stars and the Evolution of Stellar Clusters, 388, 417.

16. *Reconstructing Galactic Star Formation Histories from Star Cluster Age- and Mass-Distributions* Maschberger, T., Kroupa, P., Weidner, C., Baumgardt, H., & **Gieles, M.** (2008), Mass Loss from Stars and the Evolution of Stellar Clusters, 388, 409.

15. *Variation of the Cluster Luminosity Function Across the Disk of M51* Haas, M. R., **Gieles, M.**, Scheepmaker, R. A., Larsen, S. S., Lamers, H. J. G. L. M., & Bastian, N. (2008), Mass Loss from Stars and the Evolution of Stellar Clusters, 388, 405.

14. *The Role of Tidal Forces in Star Cluster Disruption* **Gieles, M.** (2008), Mass Loss from Stars and the Evolution of Stellar Clusters, 388, 403.

13. *Star Clusters in the Solar Neighborhood: a Solution to Oort's Problem* Lamers, H. J. G. L. M., & **Gieles, M.** (2008), Mass Loss from Stars and the Evolution of Stellar Clusters, 388, 367.

12. *Cluster Disruption: Combining Theory and Observations* Bastian, N., & **Gieles, M.** (2008), Mass Loss from Stars and the Evolution of Stellar Clusters, 388, 353.

11. *Integrated Properties of Mass Segregated Star Clusters* Gaburov, E., & **Gieles, M.** (2008), Dynamical Evolution of Dense Stellar Systems, 246, 193.

10. *Star Cluster Life-times: Dependence on Mass, Radius and Environment* **Gieles, M.**, Lamers, H. J. G. L. M., & Baumgardt, H. (2008), Dynamical Evolution of Dense Stellar Systems, 246, 171.

9. *Young Clusters and Infant Mortality* **Gieles, M.** (2008), Star Formation Across the Milky Way Galaxy, 39.

8. *The Oort problem solved* **Gieles, M.**, Lamers, H. J. G. L. M., & Portegies Zwart, S. (2006), IAU Joint Discussion, 26, 20.

7. *Measuring sizes and compactnesses of young star clusters* Anders, P., **Gieles, M.**, de Grijs, R., & Fritze-v. Alvensleben, U. (2005), Starbursts: From 30 Doradus to Lyman Break Galaxies, 329, P3.

6. *Theoretical and Observational Agreement on Mass Dependence of Cluster Life Times* **Gieles, M.**, Baumgardt, H., Bastian, N., & Lamers, H. J. G. L. M. (2004), The Formation and Evolution of Massive Young Star Clusters, 322, 481.

5. *The Star Cluster Population of M51* **Gieles, M.**, Bastian, N., & Lamers, H. J. G. L. M. (2004), The Formation and Evolution of Massive Young Star Clusters, 322, 479.

4. *The disruption time scales of clusters in different galaxies* Lamers, H. J. G. L. M., Bastian, N., & **Gieles, M.** (2004), The Formation and Evolution of Massive Young Star Clusters, 322, 409.

3. *Cluster Complexes in M51* Bastian, N., & **Gieles, M.** (2004), The Formation and Evolution of Massive Young Star Clusters, 322, 205.

2. *The Effect of Spiral Arms on Star Cluster Evolution* **Gieles, M.**, Athanassoula, E., & Portegies Zwart, S. (2004), AAS/Division of Dynamical Astronomy Meeting #35, 35, 03.02.

1. *VizieR Online Data Catalog: VB differential photometry of WR30a (Paardekooper+, 2003)* Paardekooper, S. J., van der Hucht, K. A., van Genderen, A., Brogt, E., **Gieles, M.**, & Meijerink, R. (2003), VizieR Online Data Catalog, 340, J/A+A/404/L29.