

Onsala Space Observatory, Chalmers

Publication list 2019

Compiled by Magnus Thomasson

Publications in refereed journals 2019 enabled by the Onsala infrastructure are recorded below. For technology publications, conference proceedings are included.

[Astronomy: Onsala 20 m telescope \(single-dish\)](#)

[Astronomy: APEX](#)

[Astronomy: ALMA](#)

[Astronomy: VLBI](#)

[Astronomy: LOFAR](#)

[Geoscience](#)

[Technology: receiver development etc.](#)

In addition to the publications listed below, in 2019 there was *one* publication using astronomical data from the satellite *Odin*, and *six* publications using data from *SEST* (closed in 2003).

Astronomy: Onsala 20 m telescope (single-dish)

An International Survey of Front-end Receivers and Observing Performance of Telescopes for Radio Astronomy.

Bolli, P., Orfei, A., Zanichelli, A., Prestage, R., Tingay, S.J., Beltrán, M., Burgay, M., Contavalle, C., Honma, M., Kraus, A., Lindqvist, M., Lopez Perez, J., Marongiu, P., Minamidani, T., Navarro, S., Pisanu, T., Shen, Z.-Q., Sohn, B.W., Stanghellini, C., Tzioumis, T., and Zacchiroli, G.
PASP 131, 85002 (2019)

NH₃ observations of the S235 star-forming region: Dense gas in inter-core bridges.

Burns, R.A., Handa, T., Omodaka, T., Sobolev, A.M., Kirsanova, M.S., Nagayama, T., Chibueze, J.O., Kohno, M., Nakano, M., Sunada, K., and Ladeyschikov, D.A.
PASJ 71, 91 (2019)

A multi-molecular line study of the star-forming globule CB88-230.

Brand, J., Wouterloot, J.G.A., Codella, C., Massi, F., and Giannetti, A.
A&A 628, A98 (2019)

Observational Signatures of End-dominated Collapse in the S242 Filamentary Structure.

Dewangan, L.K., Pirogov, L.E., Ryabukhina, O.L., Ojha, D.K., and Zinchenko, I.
ApJ 877, 1 (2019)

Astronomy: APEX

Publications from all APEX partner's observing time.

Imaging the molecular interstellar medium in a gravitationally lensed star-forming galaxy at $z = 5.7$.

Apostolovski, Yordanka, Aravena, Manuel, Anguita, Timo, Spilker, Justin, Weiß, Axel, Béthermin, Matthieu, Chapman, Scott C., Chen, Chian-Chou, Cunningham, Daniel, De Breuck, Carlos, Dong, Chenxing, Hayward, Christopher C., Hezaveh, Yashar, Jarugula, Sreevani, Litke, Katrina, Ma, Jingzhe, Marrone, Daniel P., Narayanan, Desika, Reuter, Cassie A., Rotermund, Kaja, Vieira, Joaquin.
A&A 628, A23 (2019)

Revealing the chemical structure of the Class I disc Oph-IRS 67.

Artur de la Villarmois, E., Kristensen, L. E., Jørgensen, J. K.
A&A 627, A37 (2019)

The RMS survey: Ammonia mapping of the environment of young massive stellar objects - II.

Billington, S. J., Urquhart, J. S., Figura, C., Eden, D. J., Moore, T. J. T.
MNRAS 483, 3146 (2019)

ATLASGAL - physical parameters of dust clumps associated with 6.7 GHz methanol masers.

Billington, S. J., Urquhart, J. S., König, C., Moore, T. J. T., Eden, D. J., Breen, S. L., Kim, W. -J., Thompson, M. A., Ellingsen, S. P., Menten, K. M., Wyrowski, F., Leurini, S.
MNRAS 490, 2779 (2019)

Kinematics around the B335 protostar down to au scales.

Bjerkeli, Per, Ramsey, Jon P., Harsono, Daniel, Calcutt, Hannah, Kristensen, Lars E., van der Wiel, Matthijs H. D., Jørgensen, Jes K., Muller, Sébastien, Persson, Magnus V.
A&A 631, A64 (2019)

Large Molecular Gas Reservoirs in Star-forming Cluster Galaxies.

Cairns, Joseph, Stroe, Andra, De Breuck, Carlos, Mroczkowski, Tony, Clements, David.
ApJ 882, 132 (2019)

^{12}CO and ^{13}CO $J = 3-2$ observations toward N11 in the Large Magellanic Cloud.

Celis Peña, M., Paron, S., Rubio, M., Herrera, C. N., Ortega, M. E.
A&A 628, A96 (2019)

Multiline Observations of Molecular Bullets from a High-mass Protostar.

Cheng, Yu, Qiu, Keping, Zhang, Qizhou, Wyrowski, Friedrich, Menten, Karl, Güsten, Rolf.
ApJ 877, 112 (2019)

A dense, solar metallicity ISM in the $z = 4.2$ dusty star-forming galaxy SPT 0418-47.

De Breuck, Carlos, Weiß, Axel, Béthermin, Matthieu, Cunningham, Daniel, Apostolovski, Yordanka, Aravena, Manuel, Archipley, Melanie, Chapman, Scott, Chen, Chian-Chou, Fu, Jianyang, Jarugula, Sreevani, Malkan, Matt, Mangian, Amelia C., Phadke, Kedar A., Reuter, Cassie A., Stacey, Gordon, Strandet, Maria, Vieira, Joaquin, Vishwas, Amit.
A&A 631, A167 (2019)

Unveiling Molecular Clouds toward Bipolar H II Region G8.14+0.23.

Dewangan, L. K., Sano, H., Enokiya, R., Tachihara, K., Fukui, Y., Ojha, D. K.
ApJ 878, 26 (2019)

Molecular Gas in the Outflow of the Small Magellanic Cloud.

Di Teodoro, Enrico M., McClure-Griffiths, N. M., De Breuck, C., Armillotta, L., Pingel, N. M., Jameson, K. E., Dickey, John M., Rubio, M., Stanimirović, S., Staveley-Smith, L.
ApJL 885, L32 (2019)

Beyond the solar circle - trends in massive star formation between the inner and outer galaxy.

Djordjevic, J. O., Thompson, M. A., Urquhart, J. S., Forbrich, J.
MNRAS 487, 1057 (2019)

Cyanoacetylene in the outflow/hot molecular core G331.512-0.103.

Duronea, N. U., Bronfman, L., Mendoza, E., Merello, M., Finger, R., Reyes, N.,
Hervías-Caimapo, C., Faure, A., Cappa, C. E., Arnal, E. M., Lépine, J. R. D., Kleiner, I.,
Nyman, L.-Å.
MNRAS 489, 1519 (2019)

First M87 Event Horizon Telescope Results. IV. Imaging the Central Supermassive Black Hole.

Event Horizon Telescope Collaboration: ..., Conway, J.E., ..., Lindqvist, M., ...,
Martí-Vidal, I, et al.
ApJ 875, L4 (2019)

First M87 Event Horizon Telescope Results. III. Data Processing and Calibration.

Event Horizon Telescope Collaboration: ..., Conway, J.E., ..., Lindqvist, M., ...,
Martí-Vidal, I, et al.
ApJ 875, L3 (2019)

First M87 Event Horizon Telescope Results. V. Physical Origin of the Asymmetric Ring.

Event Horizon Telescope Collaboration: ..., Conway, J.E., ..., Lindqvist, M., ...,
Martí-Vidal, I, et al.
ApJ 875, L5 (2019)

First M87 Event Horizon Telescope Results. VI. The Shadow and Mass of the Central Black Hole.

Event Horizon Telescope Collaboration: ..., Conway, J.E., ..., Lindqvist, M., ...,
Martí-Vidal, I, et al.
ApJ 875, L6 (2019)

First M87 Event Horizon Telescope Results. II. Array and Instrumentation.

Event Horizon Telescope Collaboration: ..., Conway, J.E., ..., Lindqvist, M., ...,
Martí-Vidal, I, et al.
ApJ 875, L2 (2019)

First M87 Event Horizon Telescope Results. I. The Shadow of the Supermassive Black Hole.
Event Horizon Telescope Collaboration: ..., Conway, J.E., ..., Lindqvist, M., ...,
Martí-Vidal, I, et al.
ApJ 875, L1 (2019)

Multiwavelength study of the G345.5+1.5 region.
Figueira, M., López-Calderón, C., Bronfman, L., Zavagno, A., Hervías-Caimapo, C.,
Duronea, N., Nyman, L.-Å.
A&A 623, A141 (2019)

Origin of the PN molecule in star-forming regions: the enlarged sample.
Fontani, F., Rivilla, V. M., van der Tak, F. F. S., Mininni, C., Beltrán, M. T., Caselli, P.
MNRAS 489, 4530 (2019)

A timeline for massive star-forming regions via combined observation of $o\text{-H}_2\text{D}^+$ and N_2D^+ .
Giannetti, A., Bovino, S., Caselli, P., Leurini, S., Schleicher, D. R. G., Körtgen, B.,
Menten, K. M., Pillai, T., Wyrowski, F.
A&A 621, L7 (2019)

Calibration of ALMA as a Phased Array. ALMA Observations During the 2017 VLBI Campaign.
Goddi, C., Martí-Vidal, I., Messias, H., Crew, G.B., Herrero-Illana, R., Impellizzeri, V.,
Rottmann, H., Wagner, J., Fomalont, E., Matthews, L.D., Petry, D., Phillips, N., Tilanus, R.,
Villard, E., Blackburn, L., Janssen, M., and Wielgus, M.
PASP 131, 75003 (2019)

Warm gas in protostellar outflows. II. Extremely high-velocity emission jet and outflows from OMC-2/3.
Gómez-Ruiz, A. I., Gusdorf, A., Leurini, S., Menten, K. M., Takahashi, S., Wyrowski, F.,
Güsten, R.
A&A 629, A77 (2019)

The 'Red Radio Ring': ionized and molecular gas in a starburst/active galactic nucleus at $z \sim 2.55$.
Harrington, Kevin C., Vishwas, A., Weiß, A., Magnelli, B., Grassitelli, L., Zajaček, M.,
Jiménez-Andrade, E. F., Leung, T. K. D., Bertoldi, F., Romano-Díaz, E., Frayer, D. T.,
Kamieneski, P., Riechers, D., Stacey, G. J., Yun, M. S., Wang, Q. D.
MNRAS 488, 1489 (2019)

Modelling the abundance structure of isocyanic acid (HNCO) towards the low-mass solar type protostar IRAS 16293-2422.
Hernández-Gómez, Antonio, Sahnoun, Emna, Caux, Emmanuel, Wiesenfeld, Laurent,
Loinard, Laurent, Bottinelli, Sandrine, Hammami, Kamel, Menten, Karl M.
MNRAS 483, 2014 (2019)

APEX Millimeter Observations of Methanol Emission Toward High-mass Star-forming Cores.

Hernández-Hernández, Vicente, Kurtz, Stan, Kalenskii, Sergei, Golysheva, Polina, Garay, Guido, Zapata, Luis, Bergman, Per.
AJ 158, 18 (2019)

Initial phases of high-mass star formation: a multiwavelength study towards the extended green object G12.42+0.50.

Issac, Namitha, Tej, Anandmayee, Liu, Tie, Varricatt, Watson, Vig, Sarita, Ishwara Chandra, C. H., Schultheis, Mathias.
MNRAS 485, 1775 (2019)

Asymmetric Line Profiles in Dense Molecular Clumps Observed in MALT90: Evidence for Global Collapse.

Jackson, James M., Whitaker, J. Scott, Rathborne, J. M., Foster, J. B., Contreras, Y., Sanhueza, Patricio, Stephens, Ian W., Longmore, S. N., Allingham, David.
ApJ 870, 5 (2019)

Spatially Resolved Water Emission from Gravitationally Lensed Dusty Star-forming Galaxies at $z \sim 3$.

Jarugula, Sreevani, Vieira, Joaquin D., Spilker, Justin S., Apostolovski, Yordanka, Aravena, Manuel, Béthermin, Matthieu, de Breuck, Carlos, Chen, Chian-Chou, Cunningham, Daniel J. M., Dong, Chenxing, Greve, Thomas, Hayward, Christopher C., Hezaveh, Yashar, Litke, Katrina C., Mangian, Amelia C., Narayanan, Desika, Phadke, Kedar, Reuter, Cassie A., Van der Werf, Paul, Weiss, Axel.
ApJ 880, 92 (2019)

Molecular envelope around the HII region RCW 120.

Kirsanova, M. S., Pavlyuchenkov, Ya N., Wiebe, D. S., Boley, P. A., Sali, S. V., Kalenskii, S. V., Sobolev, A. M., Anderson, L. D.
MNRAS 488, 5641 (2019)

Prevalence of SED Turndown among Classical Be Stars: Are All Be Stars Close Binaries?.

Klement, Robert, Carciofi, A. C., Rivinius, T., Ignace, R., Matthews, L. D., Torstensson, K., Gies, D., Vieira, R. G., Richardson, N. D., Domiciano de Souza, A., Bjorkman, J. E., Hallinan, G., Faes, D. M., Mota, B., Gullingsrud, A. D., de Breuck, C., Kervella, P., Curé, M., Gunawan, D.
ApJ 885, 147 (2019)

Characterising the high-mass star forming filament G351.776-0.527 with Herschel and APEX dust continuum and gas observations.

Leurini, S., Schisano, E., Pillai, T., Giannetti, A., Urquhart, J., Csengeri, T., Casu, S., Cunningham, M., Elia, D., Jones, P. A., König, C., Molinari, S., Stanke, T., Testi, L., Wyrowski, F., Menten, K. M.
A&A 621, A130 (2019)

Testing the weak equivalence principle by differential measurements of fundamental constants in the Magellanic Clouds.

Levshakov, S. A., Ng, K. -W., Henkel, C., Mookerjea, B., Agafonova, I. I., Liu, S. -Y., Wang, W. -H.

MNRAS 487, 5175 (2019)

Spatial Variation of the Chemical Properties of Massive Star-forming Clumps.

Li, Mingyue, Zhou, Jianjun, Esimbek, Jarken, Quan, Donghui, He, Yuxin, Li, Qiang, Zhu, Chunhua.

ApJS 243, 13 (2019)

Molecular environs and triggered star formation around the large Galactic infrared bubble N 24.

Li, Xu, Esimbek, Jarken, Zhou, Jianjun, Baan, W. A., Ji, Weiguang, Tang, Xindi, Wu, Gang, Tang, Xiaoke, Li, Qiang, Ma, Yingxiu, Sailanbek, Serikbek, Li, Dalei, Alimbetova, Dina.

MNRAS 487, 1517 (2019)

Fragmentation and filaments at the onset of star and cluster formation. SABOCA 350 μ m view of ATLASGAL-selected massive clumps.

Lin, Y., Csengeri, T., Wyrowski, F., Urquhart, J. S., Schuller, F., Weiss, A., Menten, K. M.

A&A 631, A72 (2019)

Large-scale periodic velocity oscillation in the filamentary cloud G350.54+0.69.

Liu, Hong-Li, Stutz, Amelia, Yuan, Jing-Hua.

MNRAS 487, 1259 (2019)

Dense cores and star formation in the giant molecular cloud Vela C.

Massi, F., Weiss, A., Elia, D., Csengeri, T., Schisano, E., Giannini, T., Hill, T., Lorenzetti, D., Menten, K., Olmi, L., Schuller, F., Strafella, F., De Luca, M., Motte, F., Wyrowski, F.

A&A 628, A110 (2019)

The molecular gas properties in the gravitationally lensed merger HATLAS

J142935.3-002836.

Messias, Hugo, Nagar, Neil, Zhang, Zhi-Yu, Oteo, Iván, Dye, Simon, Ibar, Eduardo, Timmons, Nicholas, van der Werf, Paul, Riechers, Dominik, Eales, Stephen, Ivison, Rob, Maresca, Jacob, Michałowski, Michał J., Yang, Chentao.

MNRAS 486, 2366 (2019)

Opening the Treasure Chest in Carina.

Mookerjea, B., Sandell, G., Güsten, R., Riquelme, D., Wiesemeyer, H., Chambers, E.

A&A 626, A131 (2019)

Weak-lensing mass calibration of the Sunyaev-Zel'dovich effect using APEX-SZ galaxy clusters.

Nagarajan, A., Pacaud, F., Sommer, M., Klein, M., Basu, K., Bertoldi, F., Lee, A. T., Ade, P. A. R., Bender, A. N., Ferrusca, D., Halverson, N. W., Horellou, C., Johnson, B. R., Kennedy, J., Kneissl, R., Menten, K. M., Reichardt, C. L., Tucker, C., Westbrook, B.

MNRAS 488, 1728 (2019)

ATLASGAL-selected massive clumps in the inner Galaxy. VII. Characterisation of mid-J CO emission.

Navarete, F., Leurini, S., Giannetti, A., Wyrowski, F., Urquhart, J. S., König, C., Csengeri, T., Güsten, R., Damineli, A., Menten, K. M.
A&A 622, A135 (2019)

Velocity profiles of [CII], [C>I], CO, and [OI] and physical conditions in four star-forming regions in the Large Magellanic Cloud.

Okada, Yoko, Güsten, Rolf, Requena-Torres, Miguel Angel, Röllig, Markus, Stutzki, Jürgen, Graf, Urs Ulrich, Hughes, Annie.
A&A 621, A62 (2019)

HD 101584: circumstellar characteristics and evolutionary status.

Olofsson, H., Khouri, T., Maercker, M., Bergman, P., Doan, L., Tafuya, D., Vlemmings, W. H. T., Humphreys, E. M. L., Lindqvist, M., Nyman, L., Ramstedt, S.
A&A 623, A153 (2019)

On the diagnostic power of FIR/sub-mm SED fitting in massive galactic molecular clumps.

Pitts, Rebecca L., Barnes, Peter J., Varosi, Frank.
MNRAS 484, 305 (2019)

CO Multi-line Observations of HH 80–81: A Two-component Molecular Outflow Associated with the Largest Protostellar Jet in Our Galaxy.

Qiu, Keping, Wyrowski, Friedrich, Menten, Karl, Zhang, Qizhou, Güsten, Rolf.
ApJ 871, 141 (2019)

A flat trend of star formation rate with X-ray luminosity of galaxies hosting AGN in the SCUBA-2 Cosmology Legacy Survey.

Ramasawmy, Joanna, Stevens, Jason, Martin, Garreth, Geach, James E.
MNRAS 486, 4320 (2019)

GASP - XVII. HI imaging of the jellyfish galaxy JO206: gas stripping and enhanced star formation.

Ramatsoku, M., Serra, P., Poggianti, B. M., Moretti, A., Gullieuszik, M., Bettoni, D., Deb, T., Fritz, J., van Gorkom, J. H., Jaffé, Y. L., Tonnesen, S., Verheijen, M. A. W., Vulcani, B., Hugo, B., Józsa, G. I. G., Maccagni, F. M., Makhathini, S., Ramaila, A., Smirnov, O., Thorat, K.
MNRAS 487, 4580 (2019)

Weak and Compact Radio Emission in Early High-mass Star-forming Regions. II. The Nature of the Radio Sources.

Rosero, V., Hofner, P., Kurtz, S., Cesaroni, R., Carrasco-González, C., Araya, E. D., Rodríguez, L. F., Menten, K. M., Wyrowski, F., Loinard, L., Ellingsen, S. P., Molinari, S.
ApJ 880, 99 (2019)

Herschel-HOBYS study of the earliest phases of high-mass star formation in NGC 6357.
Russeil, D., Figueira, M., Zavagno, A., Motte, F., Schneider, N., Men'shchikov, A.,
Bontemps, S., André, P., Anderson, L. D., Benedettini, M., Didelon, P., Di Francesco, J., Elia,
D., Könyves, V., Nguyen Luong, Q., Nony, T., Pezzuto, S., Rygl, K. L. J., Schisano, E.,
Spinoglio, L., Tigé, J., White, G. J.
A&A 625, A134 (2019)

On the size of the CO-depletion radius in the IRDC G351.77-0.51.
Sabatini, G., Giannetti, A., Bovino, S., Brand, J., Leurini, S., Schisano, E., Pillai, T.,
Menten, K. M.
MNRAS 490, 4489 (2019)

Molecular clumps towards compact H II regions.
Saldaño, Hugo P., Rubio, M., Cappa, C. E., Gómez, M.
MNRAS 487, 2881 (2019)

Physical conditions in Centaurus A's northern filaments. I. APEX mid-J CO observations of CO-bright regions.
Salomé, Q., Salomé, P., Gusdorf, A., Combes, F.
A&A 627, A6 (2019)

The ALMA Survey of 70 μm Dark High-mass Clumps in Early Stages (ASHES). I. Pilot Survey: Clump Fragmentation.
Sanhueza, Patricio, Contreras, Yanett, Wu, Benjamin, Jackson, James M.,
Guzmán, Andrés E., Zhang, Qizhou, Li, Shanghuo, Lu, Xing, Silva, Andrea, Izumi, Natsuko,
Liu, Tie, Miura, Rie E., Tatematsu, Ken'ichi, Sakai, Takeshi, Beuther, Henrik, Garay, Guido,
Ohashi, Satoshi, Saito, Masao, Nakamura, Fumitaka, Saigo, Kazuya, Veena, V. S.,
Nguyen-Luong, Quang, Tafuya, Daniel.
ApJ 886, 102 (2019)

Observational study of hydrocarbons in the bright photodissociation region of Messier 8.
Tiwari, M., Menten, K. M., Wyrowski, F., Pérez-Beaupuits, J. P., Lee, M. -Y., Kim, W. -J.
A&A 626, A28 (2019)

SOFIA FORCAST Photometry of 12 Extended Green Objects in the Milky Way.
Towner, A. P. M., Brogan, C. L., Hunter, T. R., Cyganowski, C. J., Friesen, R. K.
ApJ 875, 135 (2019)

Infrared Galaxies in the Field of the Massive Cluster Abell S1063: Discovery of a Luminous Kiloparsec-sized H II Region in a Gravitationally Lensed Infrared-luminous Galaxy at $z = 0.6$.
Walth, Gregory L., Egami, Eiichi, Clément, Benjamin, Rawle, Timothy D., Rex, Marie,
Richard, Johan, Pérez-González, Pablo, Boone, Frédéric, Dessauges-Zavadsky, Miroslava,
Portouw, Jeff, Weiner, Benjamin, McGreer, Ian, Schneider, Evan.
ApJ 877, 7 (2019)

Millimeter and Far-IR Study of the IRDC SDC 341.232-0.268.
Vazzano, M. M., Cappa, C. E., Rubio, M., Firpo, V., López-Caraballo, C. H., Duronea, N. U.
RMxAA 55, 289 (2019)

APEX Observations of the CO Envelope around the Young FUor-type Star V883 Ori.
White, J. A., Kóspál, Á., Rab, C., Ábrahám, P., Cruz-Sáenz de Miera, F., Csengeri, T.,
Fehér, O., Güsten, R., Henning, T., Vorobyov, E., Audard, M., Postel, A.
ApJ 877, 21 (2019)

The effects of ionization feedback on star formation: a case study of the M 16 H II region.
Xu, Jin-Long, Zavagno, Annie, Yu, Naiping, Liu, Xiao-Lan, Xu, Ye, Yuan, Jinghua, Zhang,
Chuan-Peng, Zhang, Si-Ju, Zhang, Guo-Yin, Ning, Chang-Chun, Ju, Bing-Gang.
A&A 627, A27 (2019)

A search for hypercompact H II regions in the Galactic Plane.
Yang, A. Y., Thompson, M. A., Tian, W. W., Bihr, S., Beuther, H., Hindson, L.
MNRAS 482, 2681 (2019)

Chemical evolution of HC₃N in dense molecular clouds.
Yu, Naiping, Wang, Jun-Jie, Xu, Jin-Long.
MNRAS 489, 4497 (2019)

A multiwavelength study of filamentary cloud G341.244-00.265.
Yu, Nai-Ping, Xu, Jing-Long, Wang, Jun-Jie.
A&A 622, A155 (2019)

Probing the initial conditions of high-mass star formation. III. Fragmentation and triggered star formation.
Zhang, Chuan-Peng, Csengeri, Timea, Wyrowski, Friedrich, Li, Guang-Xing,
Pillai, Thushara, Menten, Karl M., Hatchell, Jennifer, Thompson, Mark A.,
Pestalozzi, Michele R.
A&A 627, A85 (2019)

Astronomy: ALMA

Publications with Nordic authors.

The hidden heart of the luminous infrared galaxy IC 860. I. A molecular inflow feeding opaque, extreme nuclear activity.
Aalto, S., Muller, S., König, S., Falstad, N., Mangum, J., Sakamoto, K., Privon, G.C.,
Gallagher, J., Combes, F., Garcia-Burillo, S., Martin, S., Viti, S., van der Werf, P.,
Evans, A.S., Black, J.H., Varenus, E., Beswick, R., Fuller, G., Henkel, C., Kohno, K.,
Alatalo, K., and Mühle, S.
A&A 627, A147 (2019)

Nuclear molecular outflow in the Seyfert galaxy NGC 3227.
Alonso-Herrero, A., Garcia-Burillo, S., Pereira-Santaella, M., Davies, R.I., Combes, F.,
Vestergaard, M., Raimundo, S.I., Bunker, A., Diaz-Santos, T., Gandhi, P., Garcia-Bernete, I.,
Hicks, E.K.S., Hönic, S.F., Hunt, L.K., Imanishi, M., Izumi, T., Levenson, N.A.,
Maciejewski, W., Packham, C., Ramos Almeida, C., Ricci, C., Rigopoulou, D., Roche, P.F.,
Rosario, D., Schartmann, M., Usero, A., and Ward, M.J.
A&A 628, A65 (2019)

Imaging the molecular interstellar medium in a gravitationally lensed star-forming galaxy at $z = 5.7$.

Apostolovski, Y., Aravena, M., Anguita, T., Spilker, J., Weiß, A., Bethermin, M., Chapman, S.C., Chen, C.-C., Cunningham, D., De Breuck, C., Dong, C., Hayward, C.C., Hezaveh, Y., Jarugula, S., Litke, K., Ma, J., Marrone, D.P., Narayanan, D., Reuter, C.A., Rotermund, K., and Vieira, J.

A&A 628, A23 (2019)

A Superluminous Supernova in High Surface Density Molecular Gas within the Bar of a Metal-rich Galaxy.

Arabsalmani, M., Roychowdhury, S., Renaud, F., Cormier, D., Le Floc'h, E., Emsellem, E., Perley, D.A., Zwaan, M.A., Bournaud, F., Arumugam, V., and Møller, P.

ApJ 882, 31 (2019)

The ALMA Spectroscopic Survey in the Hubble Ultra Deep Field: Evolution of the Molecular Gas in CO-selected Galaxies.

Aravena, M., Decarli, R., González-López, J., Boogaard, L., Walter, F., Carilli, C., Popping, G., Weiss, A., Assef, R.J., Bacon, R., Bauer, F.E., Bertoldi, F., Bouwens, R., Contini, T., Cortes, P.C., Cox, P., da Cunha, E., Daddi, E., Díaz-Santos, T., Elbaz, D., Hodge, J., Inami, H., Ivison, R., Le Fèvre, O., Magnelli, B., Oesch, P., Riechers, D., Smail, I., Somerville, R.S., Swinbank, A.M., Uzgil, B., van der Werf, P., Wagg, J., and Wisotzki, L.

ApJ 882, 136 (2019)

Physical and chemical fingerprint of protostellar disc formation.

Artur de la Villarmois, E., Jørgensen, J.K., Kristensen, L.E., Bergin, E.A., Harsono, D., Sakai, N., van Dishoeck, E.F., and Yamamoto, S.

A&A 626, A71 (2019)

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