

Publicaciones Observatorio Astronómico Nacional

Año 2023

den Brok, J. S., Leroy, A. K., **Usero, A.**, Schinnerer, E., Rosolowsky, E., Koch, E. W., **Querejeta, M.**, Liu, D., Bigiel, F., Barnes, A. T., Chevance, M., Colombo, D., Dale, D. A., Glover, S. C. O., **Jimenez-Donaire, M. J.**, Teng, Y. -H., and Williams, T. G.

Resolved low-J CO excitation at 190 parsec resolution across NGC 2903 and NGC 3627.

Monthly Notices of the Royal Astronomical Society 526, 6347-6363, 12/2023

<http://dx.doi.org/10.1093/mnras/stad3091>

Hirschmann, Michaela, Charlot, Stephane, Feltre, Anna, Curtis-Lake, Emma, Somerville, Rachel S., Chevallard, Jacopo, Choi, Ena, Nelson, Dylan, Morisset, Christophe, Plat, Adele, and **Vidal-Garcia, Alba**

Emission-line properties of IllustrisTNG galaxies: from local diagnostic diagrams to high-redshift predictions for JWST.

Monthly Notices of the Royal Astronomical Society 526, 3610-3636, 12/2023

<http://dx.doi.org/10.1093/mnras/stad2955>

Nguyen, Dieu D., Cappellari, Michele, and **Pereira-Santaella, Miguel**

Simulating supermassive black hole mass measurements for a sample of ultramassive galaxies using ELT/HARMONI high-spatial-resolution integral-field stellar kinematics.

Monthly Notices of the Royal Astronomical Society 526, 3548-3569, 12/2023

<http://dx.doi.org/10.1093/mnras/stad2860>

Stuber, Sophia K., Pety, Jerome, Schinnerer, Eva, Bigiel, Frank, **Usero, Antonio**, Bešlić, Ivana, **Querejeta, Miguel**, **Jiménez-Donaire, María J.**, Leroy, Adam, den Brok, Jakob, Neumann, Lukas, Eibensteiner, Cosima, Teng, Yu-Hsuan, Barnes, Ashley, Chevance, Mélanie, Colombo, Dario, Dale, Daniel A., Glover, Simon C. O., Liu, Daizhong, and Pan, Hsi-An

Surveying the Whirlpool at Arcseconds with NOEMA (SWAN). I. Mapping the HCN and N $_2$ H $^+$ 3mm lines.

Astronomy and Astrophysics 680, L20, 12/2023

<http://dx.doi.org/10.1051/0004-6361/202348205>

Cernicharo, J., Fuentetaja, R., Agúndez, M., Cabezas, C., **Tercero, B.**, **Marcelino, N.**, and de Vicente, P.

Detection of vibrationally excited C $_6$ H in the cold prestellar core TMC-1 with the QUIJOTE line survey.

Astronomy and Astrophysics 680, L4, 12/2023

<http://dx.doi.org/10.1051/0004-6361/202348495>

Querejeta, Miguel, Pety, Jérôme, Schrubba, Andreas, Leroy, Adam K., Herrera, Cinthya N., Chiang, I-Da, Meidt, Sharon E., Rosolowsky, Erik, Schinnerer, Eva, Schuster, Karl, Sun, Jiayi, Herrmann, Kimberly A., Barnes, Ashley T., Bešlić, Ivana, Bigiel, Frank, Cao,

Yixian, Chevance, Mélanie, Eibensteiner, Cosima, Emsellem, Eric, Faesi, Christopher M., Hughes, Annie, Kim, Jaeyeon, Klessen, Ralf S., Kreckel, Kathryn, Kruijssen, J. M. Diederik, Liu, Daizhong, Neumayer, Nadine, Pan, Hsi-An, Saito, Toshiki, Sandstrom, Karin, Teng, Yu-Hsuan, **Usero, Antonio**, Williams, Thomas G., and Zakardjian, Antoine
A sensitive, high-resolution, wide-field IRAM NOEMA CO(1-0) survey of the very nearby spiral galaxy IC 342.

Astronomy and Astrophysics 680, A4, 12/2023

<http://dx.doi.org/10.1051/0004-6361/202143023>

Stevens, Adam R. H., Brown, Toby, Diemer, Benedikt, Pillepich, Annalisa, Hernquist, Lars, Nelson, Dylan, Bahé, Yannick M., Boselli, Alessandro, Davis, Timothy A., Elahi, Pascal J., Ellison, Sara L., **Jiménez-Donaire, María J.**, Roberts, Ian D., Spekkens, Kristine, Villanueva, Vicente, Watts, Adam B., Wilson, Christine D., and Zabel, Nikki
VERTICO and IllustrisTNG: The Spatially Resolved Effects of Environment on Galactic Gas.

The Astrophysical Journal 957, L19, 11/2023

<http://dx.doi.org/10.3847/2041-8213/ad014b>

Yoo, Hyunju, Lee, Chang Won, Chung, Eun Jung, Kim, Shinyoung, **Tafalla, Mario**, Caselli, Paola, Myers, Philip C., Kim, Kyoung Hee, Liu, Tie, Kwon, Woojin, Soam, Archana, and Kim, Jongsoo

TRAO Survey of Nearby Filamentary Molecular Clouds, the Universal Nursery of Stars (TRAO-FUNS). III. Filaments and Dense Cores in the NGC 2068 and NGC 2071 Regions of Orion B.

The Astrophysical Journal 957, 94, 11/2023

<http://dx.doi.org/10.3847/1538-4357/acf8c2>

Rodríguez-Baras, M., Esplugues, G., Fuente, A., Spezzano, S., Caselli, P., Loison, J. C., Roueff, E., Navarro-Almaida, D., **Bachiller, R.**, Martín-Doménech, R., Jiménez-Serra, I., Beitia-Antero, L., and Le Gal, R.

Gas phase Elemental abundances in Molecular cloudS (GEMS). IX. Deuterated compounds of H₂S in starless cores.

Astronomy and Astrophysics 679, A120, 11/2023

<http://dx.doi.org/10.1051/0004-6361/202346869>

Tafalla, M., Usero, A., and Hacar, A.

Characterizing the line emission from molecular clouds. II. A comparative study of California, Perseus, and Orion A.

Astronomy and Astrophysics 679, A112, 11/2023

<http://dx.doi.org/10.1051/0004-6361/202346136>

Hernández-Lang, D., Klein, M., Mohr, J. J., Grandis, S., Melin, J. -B., **Tarrío, P.**, Arnaud, M., Pratt, G. W., Abbott, T. M. C., Agüena, M., Alves, O., Andrade-Oliveira, F., Bacon, D., Bertin, E., Brooks, D., Burke, D. L., Carnero Rosell, A., Carrasco Kind, M., Carretero, J., Castander, F. J., Costanzi, M., da Costa, L. N., Pereira, M. E. S., Desai, S., Diehl, H. T., Doel, P., Everett, S., Ferrero, I., Flaugher, B., Frieman, J., García-Bellido, J., Gruen, D., Gruendl, R. A., Gschwend, J., Gutierrez, G., Hinton, S. R., Hollowood, D. L., Honscheid,

K., James, D. J., Kuehn, K., Kuropatkin, N., Lahav, O., Lidman, C., Melchior, P., Mena-Fernández, J., Menanteau, F., Miquel, R., Palmese, A., Paz-Chinchón, F., Pieres, A., Plazas Malagón, A. A., Raveri, M., Rodríguez-Monroy, M., Romer, A. K., Scarpine, V., Sevilla-Noarbe, I., Smith, M., Suchyta, E., Tarle, G., Thomas, D., Weaverdyck, N., and (DES Collaboration)

The PSZ-MCMF catalogue of Planck clusters over the DES region.

Monthly Notices of the Royal Astronomical Society 525, 24-43, 10/2023

<http://dx.doi.org/10.1093/mnras/stad2319>

Brown, Toby, Roberts, Ian D., Thorp, Mallory, Ellison, Sara L., Zabel, Nikki, Wilson, Christine D., Bahé, Yannick M., Bisaria, Dhruv, Bolatto, Alberto D., Boselli, Alessandro, Chung, Aeree, Cortese, Luca, Catinella, Barbara, Davis, Timothy A., **Jiménez-Donaire, María J.**, Lagos, Claudia D. P., Lee, Bumhyun, Parker, Laura C., Smith, Rory, Spekkens, Kristine, Stevens, Adam R. H., Villanueva, Vicente, and Watts, Adam B.

VERTICO. VII. Environmental Quenching Caused by the Suppression of Molecular Gas Content and Star Formation Efficiency in Virgo Cluster Galaxies.

The Astrophysical Journal 956, 37, 10/2023

<http://dx.doi.org/10.3847/1538-4357/acf195>

Huang, K. -Y., Viti, S., Holdship, J., Mangum, J. G., Martín, S., Harada, N., Muller, S., Sakamoto, K., Tanaka, K., Yoshimura, Y., Herrero-Illana, R., Meier, D. S., Behrens, E., van der Werf, P. P., Henkel, C., **García-Burillo, S.**, Rivilla, V. M., Emig, K. L., Colzi, L., Humire, P. K., Aladro, R., and Bouvier, M.

Reconstructing the shock history in the CMZ of NGC 253 with ALCHEMI (Corrigendum).
Astronomy and Astrophysics 678, C2, 10/2023

<http://dx.doi.org/10.1051/0004-6361/202245659e>

de Sá-Freitas, Camila, Gadotti, Dimitri A., Fragkoudi, Francesca, Coccato, Lodovico, Coelho, Paula, de Lorenzo-Cáceres, Adriana, Falcón-Barroso, Jesús, Kolcu, Tutku, Martín-Navarro, Ignacio, Mendez-Abreu, Jairo, Neumann, Justus, Blazquez, Patricia Sanchez, **Querejeta, Miguel**, and van de Ven, Glenn

Disc galaxies are still settling. Discovery of the smallest nuclear discs and their young stellar bars.

Astronomy and Astrophysics 678, A202, 10/2023

<http://dx.doi.org/10.1051/0004-6361/202347028>

Esplugues, G., Rodríguez-Baras, M., San Andrés, D., Navarro-Almaida, D., **Fuente, A., Rivière-Marichalar, P., Sánchez-Monge, Á.**, Drozdovskaya, M. N., Spezzano, S., and Caselli, P.

Evolution of Chemistry in the envelope of H₂O corinoS (ECHOS). I. Extremely young sulphur chemistry in the isolated Class 0 object B 335.

Astronomy and Astrophysics 678, A199, 10/2023

<http://dx.doi.org/10.1051/0004-6361/202346721>

Zakardjian, Antoine, Pety, Jérôme, Herrera, Cinthya N., Hughes, Annie, Oakes, Elias, Kreckel, Kathryn, Faesi, Chris, Glover, Simon C. O., Groves, Brent, Klessen, Ralf S., Meidt, Sharon, Barnes, Ashley, Belfiore, Francesco, Bešlić, Ivana, Bigiel, Frank, Blanc,

Guillermo A., Chevance, Mélanie, Dale, Daniel A., den Brok, Jakob, Eibensteiner, Cosima, Emsellem, Eric, García-Rodríguez, Axel, Grasha, Kathryn, Koch, Eric W., Leroy, Adam K., Liu, Daizhong, Mc Elroy, Rebecca, Neumann, Lukas, Pan, Hsi-An, **Querejeta, Miguel**, Razza, Alessandro, Rosolowsky, Erik, Saito, Toshiki, Santoro, Francesco, Schinnerer, Eva, Sun, Jiayi, **Usero, Antonio**, Watkins, Elizabeth J., and Williams, Thomas
The impact of H II regions on giant molecular cloud properties in nearby galaxies sampled by PHANGS ALMA and MUSE.

Astronomy and Astrophysics 678, A171, 10/2023

<http://dx.doi.org/10.1051/0004-6361/202244520>

Belfiore, Francesco, Leroy, Adam K., Williams, Thomas G., Barnes, Ashley T., Bigiel, Frank, Boquien, Médéric, Cao, Yixian, Chastenet, Jérémy, Congiu, Enrico, Dale, Daniel A., Egorov, Oleg V., Eibensteiner, Cosima, Emsellem, Eric, Glover, Simon C. O., Groves, Brent, Hassani, Hamid, Klessen, Ralf S., Kreckel, Kathryn, Neumann, Lukas, Neumann, Justus, **Querejeta, Miguel**, Rosolowsky, Erik, Sanchez-Blazquez, Patricia, Sandstrom, Karin, Schinnerer, Eva, Sun, Jiayi, Sutter, Jessica, and Watkins, Elizabeth J.

Calibrating mid-infrared emission as a tracer of obscured star formation on H II-region scales in the era of JWST.

Astronomy and Astrophysics 678, A129, 10/2023

<http://dx.doi.org/10.1051/0004-6361/202347175>

Massalkhi, S., Jiménez-Serra, I., Martín-Pintado, J., Rivilla, V. M., Colzi, L., Zeng, S., Martín, S., **Tercero, B.**, de Vicente, P., and Requena-Torres, M. A.

The first detection of SiC₂ in the interstellar medium.

Astronomy and Astrophysics 678, A45, 10/2023

<http://dx.doi.org/10.1051/0004-6361/202346822>

Berné, Olivier, Martin-Drumel, Marie-Aline, Schroetter, Ilane, Goicoechea, Javier R., Jacovella, Ugo, Gans, Bérenger, Dartois, Emmanuel, Coudert, Laurent H., Bergin, Edwin, Alarcon, Felipe, Cami, Jan, Roueff, Evelyne, Black, John H., Asvany, Oskar, Habart, Emilie, Peeters, Els, Canin, Amelie, Trahin, Boris, Joblin, Christine, Schlemmer, Stephan, Thorwirth, Sven, Cernicharo, Jose, Gerin, Maryvonne, Tielens, Alexander, Zannese, Marion, Abergel, Alain, Bernard-Salas, Jeronimo, Boersma, Christiaan, Bron, Emeric, Chown, Ryan, Cuadrado, Sara, Dicken, Daniel, Elyajouri, Meriem, **Fuente, Asunción**, Gordon, Karl D., Issa, Lina, Kannahou, Olga, Khan, Baria, Lacinbala, Ozan, Languignon, David, Le Gal, Romane, Maragkoudakis, Alexandros, Meshaka, Raphael, Okada, Yoko, Onaka, Takashi, Pasquini, Sofia, Pound, Marc W., Robberto, Massimo, Röllig, Markus, Schefter, Bethany, Schirmer, Thiébaud, Sidhu, Ameek, Tabone, Benoit, Van De Putte, Dries, Vicente, Sílvia, and Wolfire, Mark G.

Formation of the methyl cation by photochemistry in a protoplanetary disk.

Nature 621, 56-59, 09/2023

<http://dx.doi.org/10.1038/s41586-023-06307-x>

Salomé, Q., Krongold, Y., Longinotti, A. L., Bischetti, M., **García-Burillo, S.**, Vega, O., Sánchez-Portal, M., Feruglio, C., **Jiménez-Donaire, M. J.**, and Zanchettin, M. V.

Star formation efficiency and AGN feedback in narrow-line Seyfert 1 galaxies with fast X-ray nuclear winds.

Monthly Notices of the Royal Astronomical Society 524, 3130-3145, 09/2023

<http://dx.doi.org/10.1093/mnras/stad2116>

Raouf, Mojtaba, Viti, Serena, **García-Burillo, S.**, Richings, Alexander J., Schaye, Joop, Bemis, Ashley, Nobels, Folkert S. J., Guainazzi, Matteo, Huang, Ko-Yun, Schaller, Matthieu, Impellizzeri, Violette, and Holdship, Jon

Hydrodynamic simulations of the disc of gas around supermassive black holes (HDGAS) - I. Molecular gas dynamics.

Monthly Notices of the Royal Astronomical Society 524, 786-800, 09/2023

<http://dx.doi.org/10.1093/mnras/stad1957>

Faustino Vieira, Helena, Duarte-Cabral, Ana, Davis, Timothy A., Peretto, Nicolas, Smith, Matthew W. L., **Querejeta, Miguel**, Colombo, Dario, and Anderson, Michael

A high-resolution extinction mapping technique for face-on disc galaxies.

Monthly Notices of the Royal Astronomical Society 524, 161-175, 09/2023

<http://dx.doi.org/10.1093/mnras/stad1876>

Bianchi, Eleonora, López-Sepulcre, Ana, Ceccarelli, Cecilia, Codella, Claudio, Podio, Linda, Bouvier, Mathilde, Enrique-Romero, Joan, **Bachiller, Rafael**, and Lefloch, Bertrand

Streamers feeding the SVS13-A protobinary system: astrochemistry reveals accretion shocks?.

Faraday Discussions 245, 164-180, 09/2023

<http://dx.doi.org/10.1039/D3FD00018D>

Hashimoto, T., Álvarez-Márquez, J., Fudamoto, Y., Colina, L., Inoue, A. K., Nakazato, Y., Ceverino, D., Yoshida, N., Costantin, L., Sugahara, Y., Gómez, A. Crespo, Blanco-Prieto, C., Mawatari, K., Arribas, S., Marques-Chaves, R., **Pereira-Santaella, M.**, Bakx, T. J. L. C., Hagimoto, M., Hashigaya, T., Matsuo, H., Tamura, Y., Usui, M., and Ren, Y. W.

Reionization and the ISM/Stellar Origins with JWST and ALMA (RIOJA): The Core of the Highest-redshift Galaxy Overdensity at $z = 7.88$ Confirmed by NIRSpec/JWST.

The Astrophysical Journal 955, L2, 09/2023

<http://dx.doi.org/10.3847/2041-8213/acf57c>

Sanz-Novo, Miguel, Rivilla, Víctor M., Jiménez-Serra, Izaskun, Martín-Pintado, Jesús, Colzi, Laura, Zeng, Shaoshan, Megías, Andrés, López-Gallifa, Álvaro, Martínez-Henares, Antonio, Massalkhi, Sarah, **Tercero, Belén**, de Vicente, Pablo, Martín, Sergio, San Andrés, David, and Requena-Torres, Miguel A.

Discovery of the Elusive Carbonic Acid (HOCOOH) in Space.

The Astrophysical Journal 954, 3, 09/2023

<http://dx.doi.org/10.3847/1538-4357/ace523>

Bujarrabal, V., Alcolea, J., Castro-Carrizo, A., Kluska, J., Sánchez Contreras, C., and Van Winckel, H.

The very compact dust disk in the Red Rectangle.

Astronomy and Astrophysics 677, L18, 09/2023

<http://dx.doi.org/10.1051/0004-6361/202347686>

Agúndez, M., **Marcelino, N.**, **Tercero, B.**, and Cernicharo, J.

Aromatic cycles are widespread in cold clouds.

Astronomy and Astrophysics 677, L13, 09/2023

<http://dx.doi.org/10.1051/0004-6361/202347524>

Agúndez, M., **Marcelino, N.**, **Tercero, B.**, Jiménez-Serra, I., and Cernicharo, J.

Abundance and excitation of molecular anions in interstellar clouds.

Astronomy and Astrophysics 677, A106, 09/2023

<http://dx.doi.org/10.1051/0004-6361/202347077>

Pardo, J. R., Cabezas, C., Agúndez, M., **Tercero, B.**, **Marcelino, N.**, de Vicente, P., Guélin, M., and Cernicharo, J.

A new heavy anion in IRC + 10216: Theory favors $C_{10}H^-$ versus C_9N^- .

Astronomy and Astrophysics 677, A55, 09/2023

<http://dx.doi.org/10.1051/0004-6361/202346498>

Rocha, Carlos M. R., Roncero, Octavio, Bulut, Niyazi, Zuchowski, Piotr, Navarro-Almaida, David, **Fuente, Asunción**, Wakelam, Valentine, Loison, Jean-Christophe, Roueff, Evelyne, Goicoechea, Javier R., **Esplugues, Gisela**, Beitia-Antero, Leire, Caselli, Paola, Lattanzi, Valerio, Pineda, Jaime, Le Gal, Romane, **Rodríguez-Baras, Marina**, and **Riviere-Marichalar, Pablo**

Gas phase Elemental abundances in Molecular cloudS (GEMS). VIII. Unlocking the CS chemistry: The $CH + S \rightarrow CS + H$ and $C_2 + S \rightarrow CS + C$ reactions.

Astronomy and Astrophysics 677, A41, 09/2023

<http://dx.doi.org/10.1051/0004-6361/202346967>

Sormani, Mattia C., Barnes, Ashley T., Sun, Jiayi, Stuber, Sophia K., Schinnerer, Eva, Emsellem, Eric, Leroy, Adam K., Glover, Simon C. O., Henshaw, Jonathan D., Meidt, Sharon E., Neumann, Justus, **Querejeta, Miguel**, Williams, Thomas G., Bigiel, Frank, Eibensteiner, Cosima, Fragkoudi, Francesca, Levy, Rebecca C., Grasha, Kathryn, Klessen, Ralf S., Kruijssen, J. M. Diederik, Neumayer, Nadine, Pinna, Francesca, Rosolowsky, Erik W., Smith, Rowan J., Teng, Yu-Hsuan, Tress, Robin G., and Watkins, Elizabeth J.

Fuelling the nuclear ring of NGC 1097.

Monthly Notices of the Royal Astronomical Society 523, 2918-2927, 08/2023

<http://dx.doi.org/10.1093/mnras/stad1554>

Rivilla, Víctor M., Sanz-Novo, Miguel, Jiménez-Serra, Izaskun, Martín-Pintado, Jesús, Colzi, Laura, Zeng, Shaoshan, Megías, Andrés, López-Gallifa, Álvaro, Martínez-Henares, Antonio, Massalkhi, Sarah, **Tercero, Belén**, de Vicente, Pablo, Martín, Sergio, San Andrés, David, Requena-Torres, Miguel A., and Alonso, José Luis

First Glycine Isomer Detected in the Interstellar Medium: Glycolamide ($NH_2C(O)CH_2OH$).

The Astrophysical Journal 953, L20, 08/2023

<http://dx.doi.org/10.3847/2041-8213/ace977>

Hyland, L. J., Reid, M. J., Orosz, G., Ellingsen, S. P., Weston, S. D., Kumar, J., Dodson, R., **Rioja, M. J.**, Hankey, W. J., Yates-Jones, P. M., Natusch, T., Gulyaev, S., Menten, K. M., and Brunthaler, A.

Inverse MultiView. II. Microarcsecond Trigonometric Parallaxes for Southern Hemisphere 6.7 GHz Methanol Masers G232.62+00.99 and G323.74-00.26.

The Astrophysical Journal 953, 21, 08/2023

<http://dx.doi.org/10.3847/1538-4357/acdbc5>

Furtak, Lukas J., Zitrin, Adi, Plat, Adèle, Fujimoto, Seiji, Wang, Bingjie, Nelson, Erica J., Labbé, Ivo, Bezanson, Rachel, Brammer, Gabriel B., van Dokkum, Pieter, Endsley, Ryan, Glazebrook, Karl, Greene, Jenny E., Leja, Joel, Price, Sedona H., Smit, Renske, Stark, Daniel P., Weaver, John R., Whitaker, Katherine E., Atek, Hakim, Chevallard, Jacopo, Curtis-Lake, Emma, Dayal, Pratika, Feltre, Anna, Franx, Marijn, Fudamoto, Yoshinobu, Marchesini, Danilo, Mowla, Lamiya A., Pan, Richard, Suess, Katherine A., **Vidal-García, Alba**, and Williams, Christina C.

JWST UNCOVER: Extremely Red and Compact Object at $z_{\text{phot}} \simeq 7.6$ Triply Imaged by A2744.

The Astrophysical Journal 952, 142, 08/2023

<http://dx.doi.org/10.3847/1538-4357/acdc9d>

Jiménez-Donaire, M. J., Usero, A., Bešlić, I., **Tafalla, M., Chacón-Tanarro, A.,** Salomé, Q., Eibensteiner, C., García-Rodríguez, A., Hacar, A., Barnes, A. T., Bigiel, F., Chevance, M., Colombo, D., Dale, D. A., Davis, T. A., Glover, S. C. O., Kauffmann, J., Klessen, R. S., Leroy, A. K., Neumann, L., Pan, H., Pety, J., **Querejeta, M.,** Saito, T., Schinnerer, E., Stuber, S., and Williams, T. G.

A constant $N_{\text{H}}^{(1-0)\text{-to-HCN}}$ (1-0)-to-HCN (1-0) ratio on kiloparsec scales.

Astronomy and Astrophysics 676, L11, 08/2023

<http://dx.doi.org/10.1051/0004-6361/202347050>

Cabezas, C., Tang, J., Agúndez, M., Seiki, K., Sumiyoshi, Y., Ohshima, Y., **Tercero, B., Marcelino, N.,** Fuentetaja, R., de Vicente, P., Endo, Y., and Cernicharo, J.

Laboratory and astronomical discovery of the cyanovinyl radical H_2CCCN .

Astronomy and Astrophysics 676, L5, 08/2023

<http://dx.doi.org/10.1051/0004-6361/202347385>

Silva, W. G. D. P., Cernicharo, J., Schlemmer, S., **Marcelino, N.,** Loison, J. -C., Agúndez, M., Gupta, D., Wakelam, V., Thorwirth, S., Cabezas, C., **Tercero, B.,** Doménech, J. L., Fuentetaja, R., Kim, W. -J., de Vicente, P., and Asvany, O.

Discovery of H_2CCCH in TMC-1.

Astronomy and Astrophysics 676, L1, 08/2023

<http://dx.doi.org/10.1051/0004-6361/202347174>

Silva, W. G. D. P., Cernicharo, J., Schlemmer, S., **Marcelino, N.,** Loison, J. -C., Agúndez, M., Gupta, D., Wakelam, V., Thorwirth, S., Cabezas, C., **Tercero, B.,** Doménech, J. L., Fuentetaja, R., Kim, W. -J., de Vicente, P., and Asvany, O.

Discovery of H₂CCCH⁺ in TMC-1 (Corrigendum).

Astronomy and Astrophysics 676, C5, 08/2023

<http://dx.doi.org/10.1051/0004-6361/202347174e>

Zarattini, S., Aguerri, J. A. L., **Tarrío, P.**, and Corsini, E. M.

Fossil group origins. XIII. A paradigm shift: Fossil groups as isolated structures rather than relics of the ancient Universe.

Astronomy and Astrophysics 676, A133, 08/2023

<http://dx.doi.org/10.1051/0004-6361/202346238>

Stuber, Sophia K., Schinnerer, Eva, Williams, Thomas G., **Querejeta, Miguel**, Meidt, Sharon, Emsellem, Éric, Barnes, Ashley, Klessen, Ralf S., Leroy, Adam K., Neumann, Justus, Sormani, Mattia C., Bigiel, Frank, Chevance, Mélanie, Dale, Danny, Faesi, Christopher, Glover, Simon C. O., Grasha, Kathryn, Kruijssen, J. M. Diederik, Liu, Daizhong, Pan, Hsi-an, Pety, Jérôme, Pinna, Francesca, Saito, Toshiki, **Usero, Antonio**, and Watkins, Elizabeth J.

The gas morphology of nearby star-forming galaxies.

Astronomy and Astrophysics 676, A113, 08/2023

<http://dx.doi.org/10.1051/0004-6361/202346318>

den Brok, Jakob S., Bigiel, Frank, Chastenet, Jérémy, Sandstrom, Karin, Leroy, Adam, **Usero, Antonio**, Schinnerer, Eva, Rosolowsky, Erik W., Koch, Eric W., Chiang, I-Da, Barnes, Ashley T., Puschig, Johannes, Saito, Toshiki, Bešlić, Ivana, Chevance, Melanie, Dale, Daniel A., Eibensteiner, Cosima, Glover, Simon, **Jiménez-Donaire, María J.**, Teng, Yu-Hsuan, and Williams, Thomas G.

Wide-field CO isotopologue emission and the CO-to-H₂ factor across the nearby spiral galaxy M101.

Astronomy and Astrophysics 676, A93, 08/2023

<http://dx.doi.org/10.1051/0004-6361/202245718>

González-Martín, Omaira, Ramos Almeida, Cristina, Fritz, Jacopo, Alonso-Herrero, Almudena, Hönig, Sebastian F., Roche, Patrick F., Esparza-Arredondo, Donaji, García-Bernete, Ismael, **García-Burillo, Santiago**, Osorio-Clavijo, Natalia, Reyes-Amador, Ulises, Stalevski, Marko, and Victoria-Ceballos, César

The role of grain size in active galactic nuclei torus dust models.

Astronomy and Astrophysics 676, A73, 08/2023

<http://dx.doi.org/10.1051/0004-6361/202345858>

Zeng, S., Rivilla, V. M., Jiménez-Serra, I., Colzi, L., Martín-Pintado, J., **Tercero, B.**, de Vicente, P., Martín, S., and Requena-Torres, M. A.

Amides inventory towards the G+0.693-0.027 molecular cloud.

Monthly Notices of the Royal Astronomical Society 523, 1448-1463, 07/2023

<http://dx.doi.org/10.1093/mnras/stad1478>

Furtak, Lukas J., Mainali, Ramesh, Zitrin, Adi, Plat, Adèle, Fujimoto, Seiji, Donahue, Megan, Nelson, Erica J., Bauer, Franz E., Uematsu, Ryosuke, Caminha, Gabriel B., Andrade-Santos, Felipe, Bradley, Larry D., Caputi, Karina I., Charlot, Stéphane,

Chevallard, Jacopo, Coe, Dan, Curtis-Lake, Emma, Espada, Daniel, Frye, Brenda L., Knudsen, Kirsten K., Koekemoer, Anton M., Kohno, Kotaro, Kokorev, Vasily, Laporte, Nicolas, Lee, Minju M., Lemaux, Brian C., Magdis, Georgios E., Sharon, Keren, Stark, Daniel P., Su, Yuanyuan, Suess, Katherine A., Ueda, Yoshihiro, Umehata, Hideki, **Vidal-García, Alba**, and Wu, John F.

A variable active galactic nucleus at $z = 2.06$ triply-imaged by the galaxy cluster MACS J0035.4-2015.

Monthly Notices of the Royal Astronomical Society 522, 5142-5151, 07/2023

<http://dx.doi.org/10.1093/mnras/stad1321>

Chung, Eun Jung, Lee, Chang Won, Kwon, Woojin, **Tafalla, Mario**, Kim, Shinyoung, Soam, Archana, and Cho, Jungyeon

Magnetic Fields and Fragmentation of Filaments in the Hub of California-X.

The Astrophysical Journal 951, 68, 07/2023

<http://dx.doi.org/10.3847/1538-4357/acd540>

Huang, K. -Y., Viti, S., Holdship, J., Mangum, J. G., Martín, S., Harada, N., Muller, S., Sakamoto, K., Tanaka, K., Yoshimura, Y., Herrero-Illana, R., Meier, D. S., Behrens, E., van der Werf, P. P., Henkel, C., **García-Burillo, S.**, Rivilla, V. M., Emig, K. L., Colzi, L., Humire, P. K., Aladro, R., and Bouvier, M.

Reconstructing the shock history in the CMZ of NGC 253 with ALCHEMI.

Astronomy and Astrophysics 675, A151, 07/2023

<http://dx.doi.org/10.1051/0004-6361/202245659>

Neumann, Lukas, den Brok, Jakob S., Bigiel, Frank, Leroy, Adam, **Usero, Antonio**, Barnes, Ashley T., Bešlić, Ivana, Eibensteiner, Cosima, Held, Malena, **Jiménez-Donaire, María J.**, Pety, Jérôme, Rosolowsky, Erik W., Schinnerer, Eva, and Williams, Thomas G.

Spectral stacking of radio-interferometric data.

Astronomy and Astrophysics 675, A104, 07/2023

<http://dx.doi.org/10.1051/0004-6361/202346129>

Alonso Herrero, A., **García-Burillo, S.**, **Pereira-Santaella, M.**, Shimizu, T., Combes, F., Hicks, E. K. S., Davies, R., Ramos Almeida, C., García-Bernete, I., Hönig, S. F., Levenson, N. A., Packham, C., Bellocchi, E., Hunt, L. K., Imanishi, M., Ricci, C., and Roche, P.

AGN feedback in action in the molecular gas ring of the Seyfert galaxy NGC 7172.

Astronomy and Astrophysics 675, A88, 07/2023

<http://dx.doi.org/10.1051/0004-6361/202346074>

Roberts, Ian D., Brown, Toby, Zabel, Nikki, Wilson, Christine D., Chung, Aeree, Parker, Laura C., Bisaria, Dhruv, Boselli, Alessandro, Catinella, Barbara, Chown, Ryan, Cortese, Luca, Davis, Timothy A., Ellison, Sara, **Jiménez-Donaire, María Jesús**, Lee, Bumhyun, Smith, Rory, Spekkens, Kristine, Stevens, Adam R. H., Thorp, Mallory, Villanueva, Vincente, Watts, Adam B., Welker, Charlotte, and Yoon, Hyein

VERTICO. VI. Cold-gas asymmetries in Virgo cluster galaxies.

Astronomy and Astrophysics 675, A78, 07/2023

<http://dx.doi.org/10.1051/0004-6361/202346599>

Feltre, A., Gruppioni, C., Marchetti, L., Mahoro, A., Salvestrini, F., Mignoli, M., Bisigello, L., Calura, F., Charlot, S., Chevallard, J., Romero-Colmenero, E., Curtis-Lake, E., Delvecchio, I., Dors, O. L., Hirschmann, M., Jarrett, T., Marchesi, S., Moloko, M. E., Plat, A., Pozzi, F., Sefako, R., Traina, A., Vaccari, M., Väisänen, P., Vallini, L., **Vidal-García, A.**, and Vignali, C.

Optical and mid-infrared line emission in nearby Seyfert galaxies.

Astronomy and Astrophysics 675, A74, 07/2023

<http://dx.doi.org/10.1051/0004-6361/202245516>

Hunt, L. K., Belfiore, F., Lelli, F., Draine, B. T., Marasco, A., **García-Burillo, S.**, Venturi, G., Combes, F., Weiß, A., Henkel, C., Menten, K. M., Annibali, F., Casasola, V., Cignoni, M., McLeod, A., Tosi, M., Beltrán, M., Concas, A., Cresci, G., Ginolfi, M., Kumari, N., and Mannucci, F.

Gas, dust, and the CO-to-molecular gas conversion factor in low-metallicity starbursts.

Astronomy and Astrophysics 675, A64, 07/2023

<http://dx.doi.org/10.1051/0004-6361/202245805>

Peralta de Arriba, L., Alonso-Herrero, A., **García-Burillo, S.**, García-Bernete, I., Villar-Martín, M., García-Lorenzo, B., Davies, R., Rosario, D. J., Hönl, S. F., Levenson, N. A., Packham, C., Ramos Almeida, C., **Pereira-Santaella, M.**, Audibert, A., Bellocchi, E., Hicks, E. K. S., Labiano, A., Ricci, C., and Rigopoulou, D.

A radio-jet-driven outflow in the Seyfert 2 galaxy NGC 2110?.

Astronomy and Astrophysics 675, A58, 07/2023

<http://dx.doi.org/10.1051/0004-6361/202245408>

Eibensteiner, C., Bigiel, F., Leroy, A. K., Koch, E. W., Rosolowsky, E., Schinnerer, E., Sardone, A., Meidt, S., de Blok, W. J. G., Thilker, D., Pisano, D. J., Ott, J., Barnes, A., **Querejeta, M.**, Emsellem, E., Puschig, J., Utomo, D., Bešlić, I., den Brok, J., Faridani, S., Glover, S. C. O., Grasha, K., Hassani, H., Henshaw, J. D., **Jiménez-Donaire, M. J.**, Kerp, J., Dale, D. A., Kruijssen, J. M. D., Laudage, S., Sanchez-Blazquez, P., Smith, R., Stuber, S., Pessa, I., Watkins, E. J., Williams, T. G., and Winkel, B.

Kinematic analysis of the super-extended H I disk of the nearby spiral galaxy M 83.

Astronomy and Astrophysics 675, A37, 07/2023

<http://dx.doi.org/10.1051/0004-6361/202245290>

Teng, Yu-Hsuan, Sandstrom, Karin M., Sun, Jiayi, Gong, Munan, Bolatto, Alberto D., Chiang, I-Da, Leroy, Adam K., **Usero, Antonio**, Glover, Simon C. O., Klessen, Ralf S., Liu, Daizhong, **Querejeta, Miguel**, Schinnerer, Eva, Bigiel, Frank, Cao, Yixian, Chevance, Mélanie, Eibensteiner, Cosima, Grasha, Kathryn, Israel, Frank P., Murphy, Eric J., Neumann, Lukas, Pan, Hsi-An, Pinna, Francesca, Sormani, Mattia C., Smith, J. D., Walter, Fabian, and Williams, Thomas G.

The Physical Drivers and Observational Tracers of CO-to-H₂ Conversion Factor Variations in Nearby Barred Galaxy Centers.

The Astrophysical Journal 950, 119, 06/2023

<http://dx.doi.org/10.3847/1538-4357/acb86>

Marcelino, N., Puzzarini, C., Agúndez, M., Fuentetaja, R., **Tercero, B.**, de Vicente, P., and Cernicharo, J.

First detection of the HSO radical in space.

Astronomy and Astrophysics 674, L13, 06/2023

<http://dx.doi.org/10.1051/0004-6361/202346935>

Cernicharo, J., **Tercero, B.**, **Marcelino, N.**, Agúndez, M., and de Vicente, P.

The spatial distribution of an aromatic molecule, C₆H₅CN, in the cold dark cloud TMC-1.

Astronomy and Astrophysics 674, L4, 06/2023

<http://dx.doi.org/10.1051/0004-6361/202346722>

Manjavacas, E., Rebollido, I., Barrado-Izagirre, N., Agís-González, B., Bonoli, S., Cerviño, M., de Lorenzo-Cáceres, A., Martínez-Núñez, S., Ospina, N., Pintos-Castro, I., **Rodríguez-Baras, M.** Rouco Escorial, Suso, J., Varela, J., and **Vidal-García, A.**

Mentoring Program for Female Astronomers of the Spanish Astronomical Society: Walking together Towards the Stars.

Highlights on Spanish Astrophysics XI 484, 05/2023

Rebollido, Isabel, Ribas, Álvaro, de Gregorio-Monsalvo, Itziar, Villaver, Eva, Montesinos, Benjamín, Chen, Christine, Canovas, Héctor, Henning, Thomas, Moór, Attila, Perrin, Marshall, **Rivière-Marichalar, Pablo**, and Eiroa, Carlos

The search for gas in debris disks: ALMA detection of CO gas in HD 36546.

Highlights on Spanish Astrophysics XI 443, 05/2023

Rivière-Marichalar, P., **Fuente, A.**, Navarro-Almaida, D., and Baruteau, C.

AB Aur: A Rosetta stone for planet formation theories. System chemistry.

Highlights on Spanish Astrophysics XI 405, 05/2023

Gómez-Garrido, M., **Tercero, B.**, Beltrán, F., González-García, J., Gallego, J. D., López-Pérez, J. A., Tercero, F., García, O., Patino-Esteban, M., López-Fernández, I., Gómez-Molina, G., Díez, M., García-Carreño, P., Bautista, M., Malo, I., Amils, R., Serna, J. M., Albo, C., Hernández, J. M., Vaquero, B., Barbas, L., López-Fernández, J. A. **Bujarrabal, Chacón-Tanarro, A.**, **Esplugues, G.**, **García-Miró, C.**, **Jiménez-Donaire, M. J.**, **Marcelino, N.**, Pardo, J. R., **Santander-García, M.**, **Tarrío, P.**, Cernicharo, J., and de Vicente, P.

The 40m radiotelescope of the Yebes Observatory.

Highlights on Spanish Astrophysics XI 400, 05/2023

Santander-García, M., Manuel Julián, J. A., **Alcolea, J.**, **Bujarrabal, V.**, and Asensio Ramos, A.

Do machines dream of modelling AGB stars?.

Highlights on Spanish Astrophysics XI 324, 05/2023

Domínguez-Salamanca, I., **Alcolea, J.**, **Bujarrabal, V.**, **Santander-García, M.**, Agúndez, M., Castro Carrizo, A., **Desmurs, J. -F.**, and Sánchez Contreras, C.

Multi-transitional SHAPEMOL modelling of M1-92: the discovery of a shock excited hot molecular component.

Highlights on Spanish Astrophysics XI 281, 05/2023

Gallardo Cava, I., **Bujarrabal, V.**, **Alcolea, J.**, **Gómez-Garrido, M.**, Castro-Carrizo, A., Van Winckel, H., and **Santander-García, M.**

Keplerian disks and outflows around binary post-AGB stars.

Highlights on Spanish Astrophysics XI 278, 05/2023

Velilla-Prieto, L., **Alcolea, J.**, **Bujarrabal, V.**, Castro-Carrizo, A., Olofsson, H., Vlemmings, W., Khouri, T., and Agúndez, M.

CHIPS: Chemistry in outflows of Post-AGB stars.

Highlights on Spanish Astrophysics XI 273, 05/2023

Beitia-Antero, L. and **Fuente, A.**

The role of turbulence in the chemical evolution of the interstellar medium.

Highlights on Spanish Astrophysics XI 264, 05/2023

Navarro-Almaida, D., Bop, C. T., Lique, F., **Esplugues, G.**, Rodríguez-Baras, M., Kramer, C., Romero, C., **Fuente, A.**, Caselli, P., **Riviére-Marichalar, P.**, and Mroczkowski, T.

Linking the dust and chemical evolution in Taurus and Perseus: new collisional rates for HCN, HNC, and their C, N, and H isotopologues.

Highlights on Spanish Astrophysics XI 204, 05/2023

Alcolea, J., Mikolajewska, J., **Gómez-Garrido, M.**, **Bujarrabal, V.**, Ilkiewicz, K., Castro-Carrizo, A., **Desmurs, J. -F.**, **Santander-García, M.**, and **Bachiller, R.**

Determining the orbital parameters of binary systems with an AGB primary. The case of the R Aqr symbiotic system.

Highlights on Spanish Astrophysics XI 190, 05/2023

Gómez-Garrido, M., **Bujarrabal, V.**, **Alcolea, J.**, and Castro-Carrizo, A.

Continuum and line emission of the symbiotic binary R Aqr.

Highlights on Spanish Astrophysics XI 179, 05/2023

Peralta de Arriba, L., Alonso-Herrero, A., Villar-Martín, M., **García-Burillo, S.**, García-Bernete, I., García-Lorenzo, B., Rosario, D. J., Bellocchi, E., Hicks, E. K. S., Labiano, Á., and Levenson, N. A.

Resolving the ionised outflows in GATOS Seyfert galaxies with GTC/MEGARA.

Highlights on Spanish Astrophysics XI 127, 05/2023

Bellocchi, E., **Pereira-Santaella, M.**, Colina, L., Labiano, A., Sánchez-García, M., Alonso-Herrero, A., Arribas, S., and **García-Burillo, S.**

New molecular size estimation in local LIRGs at high-spatial resolution with ALMA.

Highlights on Spanish Astrophysics XI 68, 05/2023

Rodríguez-Baras, M., Agís-González, B., Barrado-Izagirre, N., Bonoli, S., Cerviño, M., de Lorenzo-Cáceres, A., Manjavacas, E., Martínez-Núñez, S., Ospina, N., Pintos-Castro, I., Rebollido, I., Rouco Escorial, A., Suso, J., Varela, J., and **Vidal-García, A.**

Challenges and projects to progress toward gender equality in the Spanish astronomical community.

Highlights on Spanish Astrophysics XI 12, 05/2023

Neumann, Lukas, Gallagher, Molly J., Bigiel, Frank, Leroy, Adam K., Barnes, Ashley T., **Usero, Antonio**, den Brok, Jakob S., Belfiore, Francesco, Bešlić, Ivana, Cao, Yixian, Chevance, Mélanie, Dale, Daniel A., Eibensteiner, Cosima, Glover, Simon C. O., Grasha, Kathryn, Henshaw, Jonathan D., **Jiménez-Donaire, María J.**, Klessen, Ralf S., Kruijssen, J. M. Diederik, Liu, Daizhong, Meidt, Sharon, Pety, Jérôme, Puschig, Johannes, **Querejeta, Miguel**, Rosolowsky, Erik, Schinnerer, Eva, Schrubba, Andreas, Sormani, Mattia C., Sun, Jiayi, Teng, Yu-Hsuan, and Williams, Thomas G.

The ALMOND survey: molecular cloud properties and gas density tracers across 25 nearby spiral galaxies with ALMA.

Monthly Notices of the Royal Astronomical Society 521, 3348-3383, 05/2023

<http://dx.doi.org/10.1093/mnras/stad424>

Longinotti, Anna Lia, Salomé, Q., Feruglio, C., Krongold, Y., **García-Burillo, S.**, Giroletti, M., Panessa, F., Stanghellini, C., Vega, O., Patiño-Álvarez, V. M., Chavushyan, V., Elías-Chavez, M., and Robledo-Orús, A.

NOEMA spatially resolved view of the multiphase outflow in IRAS17020+4544: a shocked wind in action?.

Monthly Notices of the Royal Astronomical Society 521, 2134-2148, 05/2023

<http://dx.doi.org/10.1093/mnras/stad540>

Pessa, I., Schinnerer, E., Sanchez-Blazquez, P., Belfiore, F., Groves, B., Emsellem, E., Neumann, J., Leroy, A. K., Bigiel, F., Chevance, M., Dale, D. A., Glover, S. C. O., Grasha, K., Klessen, R. S., Kreckel, K., Kruijssen, J. M. D., Pinna, F., **Querejeta, M.**, Rosolowsky, E., and Williams, T. G.

Resolved stellar population properties of PHANGS-MUSE galaxies.

Astronomy and Astrophysics 673, A147, 05/2023

<http://dx.doi.org/10.1051/0004-6361/202245673>

Ribas, Á., Macías, E., Weber, P., Pérez, S., Cuello, N., Dong, R., Aguayo, A., Cáceres, C., Carpenter, J., Dent, W. R. F., de Gregorio-Monsalvo, I., Duchêne, G., Espaillat, C. C., **Riviere-Marichalar, P.**, and Villenave, M.

The ALMA view of MP Mus (PDS 66): A protoplanetary disk with no visible gaps down to 4 au scales.

Astronomy and Astrophysics 673, A77, 05/2023

<http://dx.doi.org/10.1051/0004-6361/202245637>

Agúndez, M., Loison, J. -C., Hickson, K. M., Wakelam, V., Fuentetaja, R., Cabezas, C., **Marcelino, N.**, **Tercero, B.**, de Vicente, P., and Cernicharo, J.

Detection of ethanol, acetone, and propanal in TMC-1 New O-bearing complex organics in cold sources.

Astronomy and Astrophysics 673, A34, 05/2023

<http://dx.doi.org/10.1051/0004-6361/202346076>

Villar Martín, M., Castro-Rodríguez, N., **Pereira Santaella, M.**, Lamperti, I., Tadhunter, C., Emonts, B., Colina, L., Alonso Herrero, A., Cabrera-Lavers, A., and Bellocchi, E.

Limited impact of jet-induced feedback in the multi-phase nuclear interstellar medium of 4C12.50.

Astronomy and Astrophysics 673, A25, 05/2023

<http://dx.doi.org/10.1051/0004-6361/202245418>

Agúndez, M., Roncero, O., **Marcelino, N.**, Cabezas, C., **Tercero, B.**, and Cernicharo, J.

The chemistry of H_2NC in the interstellar medium and the role of the $\text{C} + \text{NH}_3$ reaction.

Astronomy and Astrophysics 673, A24, 05/2023

<http://dx.doi.org/10.1051/0004-6361/202346279>

Watts, Adam B., Cortese, Luca, Catinella, Barbara, Brown, Toby, Wilson, Christine D., Zabel, Nikki, Roberts, Ian D., Davis, Timothy A., Thorp, Mallory, Chung, Aeree, Stevens, Adam R. H., Ellison, Sara L., Spekkens, Kristine, Parker, Laura C., Bahé, Yannick M., Villanueva, Vicente, **Jiménez-Donaire, María**, Bisaria, Dhruv, Boselli, Alessandro, Bolatto, Alberto D., and Lee, Bumhyun

VERTICO V: The environmentally driven evolution of the inner cold gas discs of Virgo cluster galaxies.

Publications of the Astronomical Society of Australia 40, e017, 04/2023

<http://dx.doi.org/10.1017/pasa.2023.14>

Lu, Ru-Sen, Asada, Keiichi, Krichbaum, Thomas P., Park, Jongho, Tazaki, Fumie, Pu, Hung-Yi, Nakamura, Masanori, Lobanov, Andrei, Hada, Kazuhiro, Akiyama, Kazunori, Kim, Jae-Young, Marti-Vidal, Ivan, Gómez, José L., Kawashima, Tomohisa, Yuan, Feng, Ros, Eduardo, Alef, Walter, Britzen, Silke, Bremer, Michael, Broderick, Avery E., Doi, Akihiro, Giovannini, Gabriele, Giroletti, Marcello, Ho, Paul T. P., Honma, Mareki, Hughes, David H., Inoue, Makoto, Jiang, Wu, Kino, Motoki, Koyama, Shoko, Lindqvist, Michael, Liu, Jun, Marscher, Alan P., Matsushita, Satoki, Nagai, Hiroshi, Rottmann, Helge, Savolainen, Tuomas, Schuster, Karl-Friedrich, Shen, Zhi-Qiang, de Vicente, Pablo, Walker, R. Craig, Yang, Hai, Zensus, J. Anton, Algaba, Juan Carlos, Allardi, Alexander, Bach, Uwe, Berthold, Ryan, Bintley, Dan, Byun, Do-Young, Casadio, Carolina, Chang, Shu-Hao, Chang, Chih-Cheng, Chang, Song-Chu, Chen, Chung-Chen, Chen, Ming-Tang, Chilson, Ryan, Chuter, Tim C., Conway, John, Crew, Geoffrey B., Dempsey, Jessica T., Dornbusch, Sven, Faber, Aaron, Friberg, Per, García, Javier González, Garrido, **Miguel Gómez**, Han, Chih-Chiang, Han, Kuo-Chang, Hasegawa, Yutaka, Herrero-Illana, Ruben, Huang, Yau-De, Huang, Chih-Wei L., Impellizzeri, Violette, Jiang, Homin, Jinchi, Hao, Jung, Taehyun, Kallunki, Juha, Kirves, Petri, Kimura, Kimihiro, Koay, Jun Yi, Koch, Patrick M., Kramer, Carsten, Kraus, Alex, Kubo, Derek, Kuo, Cheng-Yu, Li, Chao-Te, Lin, Lupin Chun-Che, Liu, Ching-Tang, Liu, Kuan-Yu, Lo, Wen-Ping, Lu, Li-Ming, MacDonald, Nicholas, Martin-Cocher, Pierre, Messias, Hugo, Meyer-Zhao, Zheng, Minter, Anthony, Nair, Dhanya G., Nishioka, Hiroaki, Norton, Timothy J., Nystrom, George, Ogawa, Hideo, Oshiro, Peter, Patel, Nimesh A., Pen, Ue-

Li, Pidopryhora, Yurii, Pradel, Nicolas, Raffin, Philippe A., Rao, Ramprasad, Ruiz, Ignacio, Sanchez, Salvador, Shaw, Paul, Snow, William, Sridharan, T. K., Srinivasan, Ranjani, **Tercero, Belén**, Torne, Pablo, Traianou, Efthalia, Wagner, Jan, Walther, Craig, Wei, Ta-Shun, Yang, Jun, and Yu, Chen-Yu

A ring-like accretion structure in M87 connecting its black hole and jet.

Nature 616, 686-690, 04/2023

<http://dx.doi.org/10.1038/s41586-023-05843-w>

Johnson, Michael D., Akiyama, Kazunori, Blackburn, Lindy, Bouman, Katherine L., Broderick, Avery E., Cardoso, Vitor, Fender, Rob P., Fromm, Christian M., Galison, Peter, Gómez, José L., Haggard, Daryl, Lister, Matthew L., Lobanov, Andrei P., Markoff, Sera, Narayan, Ramesh, Natarajan, Priyamvada, Nichols, Tiffany, Pesce, Dominic W., Younsi, Ziri, Chael, Andrew, Chatterjee, Koushik, Chaves, Ryan, Doboszewski, Juliusz, Dodson, Richard, Doeleman, Sheperd S., Elder, Jamee, Fitzpatrick, Garret, Haworth, Kari, Houston, Janice, Issaoun, Sara, Kovalev, Yuri Y., Levis, Aviad, Lico, Rocco, Marcoci, Alexandru, Martens, Niels C. M., Nagar, Neil M., Oppenheimer, Aaron, Palumbo, Daniel C. M., Ricarte, Angelo, **Rioja, María J.**, Roelofs, Freek, Thresher, Ann C., Tiede, Paul, Weintraub, Jonathan, and Wielgus, Maciek

Key Science Goals for the Next-Generation Event Horizon Telescope.

Galaxies 11, 61, 04/2023

<http://dx.doi.org/10.3390/galaxies11030061>

Cernicharo, J., Cabezas, C., Pardo, J. R., Agúndez, M., Roncero, O., **Tercero, B., Marcelino, N.**, Guélin, M., Endo, Y., and de Vicente, P.

The magnesium paradigm in IRC +10216: Discovery of MgC_4H^+ , MgC_3N^+ , MgC_6H^+ , and MgC_5N^+ .

Astronomy and Astrophysics 672, L13, 04/2023

<http://dx.doi.org/10.1051/0004-6361/202346467>

Cabezas, C., Pardo, J. R., Agúndez, M., **Tercero, B., Marcelino, N.**, Endo, Y., de Vicente, P., Guélin, M., and Cernicharo, J.

Discovery of two metallic cyanoacetylides in IRC +10216: HMgCCCN and NaCCCN.

Astronomy and Astrophysics 672, L12, 04/2023

<http://dx.doi.org/10.1051/0004-6361/202346462>

García-Rodríguez, A., **Usero, A.**, Leroy, A. K., Bigiel, F., **Jiménez-Donaire, M. J.**, Liu, D., **Querejeta, M.**, Saito, T., Schinnerer, E., Barnes, A., Belfiore, F., Bešlić, I., Cao, Y., Chevance, M., Dale, D. A., den Brok, J. S., Eibensteiner, C., **García-Burillo, S.**, Glover, S. C. O., Klessen, R. S., Pety, J., Puschig, J., Rosolowsky, E., Sandstrom, K., Sormani, M. C., Teng, Y. -H., and Williams, T. G.

Sub-kiloparsec empirical relations and excitation conditions of HCN and HCO^+ J = 3-2 in nearby star-forming galaxies.

Astronomy and Astrophysics 672, A96, 04/2023

<http://dx.doi.org/10.1051/0004-6361/202244317>

Liu, Daizhong, Schinnerer, Eva, Saito, Toshiki, Rosolowsky, Erik, Leroy, Adam, **Usero, Antonio**, Sandstrom, Karin, Klessen, Ralf S., Glover, Simon C. O., Ao, Yiping, Bešlić, Ivana, Bigiel, Frank, Cao, Yixian, Chasteney, Jérémy, Chevance, Mélanie, Dale, Daniel A., Gao, Yu, Hughes, Annie, Kreckel, Kathryn, Kruijssen, J. M. Diederik, Pan, Hsi-An, Pety, Jérôme, Salak, Dragan, Santoro, Francesco, Schrubba, Andreas, Sun, Jiayi, Teng, Yu-Hsuan, and Williams, Thomas

C I and CO in nearby spiral galaxies. I. Line ratio and abundance variations at ~ 200 pc scales.

Astronomy and Astrophysics 672, A36, 04/2023

<http://dx.doi.org/10.1051/0004-6361/202244564>

Donnan, F. R., García-Bernete, I., Rigopoulou, D., **Pereira-Santaella, M.**, Alonso-Herrero, A., Roche, P. F., Hernán-Caballero, A., and Spoon, H. W. W.

The obscured nucleus and shocked environment of VV 114E revealed by JWST/MIRI spectroscopy.

Monthly Notices of the Royal Astronomical Society 519, 3691-3705, 03/2023

<http://dx.doi.org/10.1093/mnras/stac3729>

Sun, Jiayi, Leroy, Adam K., Ostriker, Eve C., Meidt, Sharon, Rosolowsky, Erik, Schinnerer, Eva, Wilson, Christine D., Utomo, Dyas, Belfiore, Francesco, Blanc, Guillermo A., Emsellem, Eric, Faesi, Christopher, Groves, Brent, Hughes, Annie, Koch, Eric W., Kreckel, Kathryn, Liu, Daizhong, Pan, Hsi-An, Pety, Jérôme, **Querejeta, Miguel**, Razza, Alessandro, Saito, Toshiki, Sardone, Amy, **Usero, Antonio**, Williams, Thomas G., Bigiel, Frank, Bolatto, Alberto D., Chevance, Mélanie, Dale, Daniel A., Gensior, Jindra, Glover, Simon C. O., Grasha, Kathryn, Henshaw, Jonathan D., **Jiménez-Donaire, María J.**, Klessen, Ralf S., Kruijssen, J. M. Diederik, Murphy, Eric J., Neumann, Lukas, Teng, Yu-Hsuan, and Thilker, David A.

Star Formation Laws and Efficiencies across 80 Nearby Galaxies.

The Astrophysical Journal 945, L19, 03/2023

<http://dx.doi.org/10.3847/2041-8213/acbd9c>

Audibert, A., Ramos Almeida, C., **García-Burillo, S.**, Combes, F., Bischetti, M., Meenakshi, M., Mukherjee, D., Bicknell, G., and Wagner, A. Y.

Jet-induced molecular gas excitation and turbulence in the Teacup.

Astronomy and Astrophysics 671, L12, 03/2023

<http://dx.doi.org/10.1051/0004-6361/202345964>

Fuentetaja, R., Bermúdez, C., Cabezas, C., Agúndez, M., **Tercero, B.**, **Marcelino, N.**, Pardo, J. R., Margulès, L., Motiyenko, R. A., Guillemin, J. -C., de Vicente, P., and Cernicharo, J.

Discovery of CH₃CHCO in TMC-1 with the QUIJOTE line survey.

Astronomy and Astrophysics 671, L6, 03/2023

<http://dx.doi.org/10.1051/0004-6361/202245732>

Gallardo Cava, I., **Alcolea, J.**, **Bujarrabal, V.**, **Gómez-Garrido, M.**, and Castro-Carrizo, A.
The nebula around the binary post-AGB star 89 Herculis.

Astronomy and Astrophysics 671, A80, 03/2023

<http://dx.doi.org/10.1051/0004-6361/202244415>

de Sá-Freitas, Camila, Fragkoudi, Francesca, Gadotti, Dimitri A., Falcón-Barroso, Jesús, Bittner, Adrian, Sánchez-Blázquez, Patricia, van de Ven, Glenn, Bieri, Rebekka, Coccato, Lodovico, Coelho, Paula, Fahrion, Katja, Gonçalves, Geraldo, Kim, Taehyun, de Lorenzo-Cáceres, Adriana, Martig, Marie, Martín-Navarro, Ignacio, Mendez-Abreu, Jairo, Neumann, Justus, and **Querejeta, Miguel**

A new method for age-dating the formation of bars in disc galaxies. The TIMER view on NGC1433's old bar and the inside-out growth of its nuclear disc.

Astronomy and Astrophysics 671, A8, 03/2023

<http://dx.doi.org/10.1051/0004-6361/202244667>

Jiménez-Donaire, María J., Brown, Toby, Wilson, Christine D., Roberts, Ian D., Zabel, Nikki, Ellison, Sara L., Thorp, Mallory, Villanueva, Vicente, Chown, Ryan, Bisaria, Dhruv, Bolatto, Alberto D., Boselli, Alessandro, Catinella, Barbara, Chung, Aeree, Cortese, Luca, Davis, Timothy A., Lagos, Claudia D. P., Lee, Bumhyun, Parker, Laura C., Spekkens, Kristine, Stevens, Adam R. H., and Sun, Jiayi

VERTICO. III. The Kennicutt-Schmidt relation in Virgo cluster galaxies.

Astronomy and Astrophysics 671, A3, 03/2023

<http://dx.doi.org/10.1051/0004-6361/202244718>

Issaoun, Sara, Pesce, Dominic W., Roelofs, Freek, Chael, Andrew, Dodson, Richard, **Rioja, María J.**, Akiyama, Kazunori, Aran, Romy, Blackburn, Lindy, Doeleman, Sheperd S., Fish, Vincent L., Fitzpatrick, Garret, Johnson, Michael D., Narayanan, Gopal, Raymond, Alexander W., and Tilanus, Remo P. J.

Enabling Transformational ngEHT Science via the Inclusion of 86 GHz Capabilities.

Galaxies 11, 28, 02/2023

<http://dx.doi.org/10.3390/galaxies11010028>

Morganti, Raffaella, Murthy, Suma, Guillard, Pierre, Oosterloo, Tom, and **Garcia-Burillo, Santiago**

Young Radio Sources Expanding in Gas-Rich ISM: Using Cold Molecular Gas to Trace Their Impact.

Galaxies 11, 24, 02/2023

<http://dx.doi.org/10.3390/galaxies11010024>

Watkins, Elizabeth J., Barnes, Ashley T., Henny, Kiana, Kim, Hwi Hyun, Kreckel, Kathryn, Meidt, Sharon E., Klessen, Ralf S., Glover, Simon C. O., Williams, Thomas G., Keller, Benjamin W., Leroy, Adam K., Rosolowsky, Erik, Lee, Janice C., Anand, Gagandeep S., Belfiore, Francesco, Bigiel, Frank, Blanc, Guillermo A., Boquien, Médéric, Cao, Yixian, Chandar, Rupali, Chen, Ness Mayker, Chevance, Mélanie, Congiu, Enrico, Dale, Daniel A., Deger, Sinan, Egorov, Oleg V., Emsellem, Eric, Faesi, Christopher M., Grasha, Kathryn, Groves, Brent, Hassani, Hamid, Henshaw, Jonathan D., Herrera, Cinthya, Hughes, Annie, Jeffreson, Sarah, **Jiménez-Donaire, María J.**, Koch, Eric W., Kruijssen, J. M. Diederik, Larson, Kirsten L., Liu, Daizhong, Lopez, Laura A., Pessa, Ismael, Pety, Jérôme, **Querejeta, Miguel**, Saito, Toshiki, Sandstrom, Karin, Scheuermann, Fabian,

Schinnerer, Eva, Sormani, Mattia C., Stuber, Sophia K., Thilker, David A., **Usero, Antonio**, and Whitmore, Bradley C.

PHANGS-JWST First Results: A Statistical View on Bubble Evolution in NGC 628.

The Astrophysical Journal 944, L24, 02/2023

<http://dx.doi.org/10.3847/2041-8213/aca6e4>

Barnes, Ashley. T., Watkins, Elizabeth J., Meidt, Sharon E., Kreckel, Kathryn, Sormani, Mattia C., Treß, Robin G., Glover, Simon C. O., Bigiel, Frank, Chandar, Rupali, Emsellem, Eric, Lee, Janice C., Leroy, Adam K., Sandstrom, Karin M., Schinnerer, Eva, Rosolowsky, Erik, Belfiore, Francesco, Blanc, Guillermo A., Boquien, Médéric, Brok, Jakob den, Cao, Yixian, Chevance, Mélanie, Dale, Daniel A., Egorov, Oleg V., Eibensteiner, Cosima, Grasha, Kathryn, Groves, Brent, Hassani, Hamid, Henshaw, Jonathan D., Jeffreson, Sarah, **Jiménez-Donaire, María J.**, Keller, Benjamin W., Klessen, Ralf S., Koch, Eric W., Kruijssen, J. M. Diederik, Larson, Kirsten L., Li, Jing, Liu, Daizhong, Lopez, Laura A., Murphy, Eric J., Neumann, Lukas, Pety, Jérôme, Pinna, Francesca, **Querejeta, Miguel**, Renaud, Florent, Saito, Toshiki, Sarbadhicary, Sumit K., Sardone, Amy, Smith, Rowan J., Stuber, Sophia K., Sun, Jiayi, Thilker, David A., **Usero, Antonio**, Whitmore, Bradley C., and Williams, Thomas G.

PHANGS-JWST First Results: Multiwavelength View of Feedback-driven Bubbles (the Phantom Voids) across NGC 628.

The Astrophysical Journal 944, L22, 02/2023

<http://dx.doi.org/10.3847/2041-8213/aca7b9>

Kim, Jaeyeon, Chevance, Mélanie, Kruijssen, J. M. Diederik, Barnes, Ashley. T., Bigiel, Frank, Blanc, Guillermo A., Boquien, Médéric, Cao, Yixian, Congiu, Enrico, Dale, Daniel A., Egorov, Oleg V., Faesi, Christopher M., Glover, Simon C. O., Grasha, Kathryn, Groves, Brent, Hassani, Hamid, Hughes, Annie, Klessen, Ralf S., Kreckel, Kathryn, Larson, Kirsten L., Lee, Janice C., Leroy, Adam K., Liu, Daizhong, Longmore, Steven N., Meidt, Sharon E., Pan, Hsi-An, Pety, Jérôme, **Querejeta, Miguel**, Rosolowsky, Erik, Saito, Toshiki, Sandstrom, Karin, Schinnerer, Eva, Smith, Rowan J., **Usero, Antonio**, Watkins, Elizabeth J., and Williams, Thomas G.

PHANGS-JWST First Results: Duration of the Early Phase of Massive Star Formation in NGC 628.

The Astrophysical Journal 944, L20, 02/2023

<http://dx.doi.org/10.3847/2041-8213/aca90a>

Liu, Daizhong, Schinnerer, Eva, Cao, Yixian, Leroy, Adam, **Usero, Antonio**, Rosolowsky, Erik, Kruijssen, J. M. Diederik, Chevance, Mélanie, Glover, Simon C. O., Sormani, Mattia C., Bolatto, Alberto D., Sun, Jiayi, Stuber, Sophia K., Teng, Yu-Hsuan, Bigiel, Frank, Bešlić, Ivana, Grasha, Kathryn, Henshaw, Jonathan D., Barnes, Ashley T., den Brok, Jakob S., Saito, Toshiki, Dale, Daniel A., Watkins, Elizabeth J., Pan, Hsi-An, Klessen, Ralf S., Emsellem, Eric, Anand, Gagandeep S., Deger, Sinan, Egorov, Oleg V., Faesi, Christopher M., Hassani, Hamid, Larson, Kirsten L., Lee, Janice C., Lopez, Laura A., Pety, Jérôme, Sandstrom, Karin, Thilker, David A., Whitmore, Bradley C., and Williams, Thomas G.

PHANGS-JWST First Results: Stellar-feedback-driven Excitation and Dissociation of Molecular Gas in the Starburst Ring of NGC 1365?.

The Astrophysical Journal 944, L19, 02/2023

<http://dx.doi.org/10.3847/2041-8213/aca973>

Meidt, Sharon E., Rosolowsky, Erik, Sun, Jiayi, Koch, Eric W., Klessen, Ralf S., Leroy, Adam K., Schinnerer, Eva, Barnes, Ashley. T., Glover, Simon C. O., Lee, Janice C., van der Wel, Arjen, Watkins, Elizabeth J., Williams, Thomas G., Bigiel, F., Boquien, Médéric, Blanc, Guillermo A., Cao, Yixian, Chevance, Mélanie, Dale, Daniel A., Egorov, Oleg V., Emsellem, Eric, Grasha, Kathryn, Henshaw, Jonathan D., Kruijssen, J. M. Diederik, Larson, Kirsten L., Liu, Daizhong, Murphy, Eric J., Pety, Jérôme, **Querejeta, Miguel**, Saito, Toshiki, Sandstrom, Karin M., Smith, Rowan J., Sormani, Mattia C., and Thilker, David A.

PHANGS-JWST First Results: Interstellar Medium Structure on the Turbulent Jeans Scale in Four Disk Galaxies Observed by JWST and the Atacama Large Millimeter/submillimeter Array.

The Astrophysical Journal 944, L18, 02/2023

<http://dx.doi.org/10.3847/2041-8213/acaaa8>

Lee, Janice C., Sandstrom, Karin M., Leroy, Adam K., Thilker, David A., Schinnerer, Eva, Rosolowsky, Erik, Larson, Kirsten L., Egorov, Oleg V., Williams, Thomas G., Schmidt, Judy, Emsellem, Eric, Anand, Gagandeep S., Barnes, Ashley T., Belfiore, Francesco, Bešlić, Ivana, Bigiel, Frank, Blanc, Guillermo A., Bolatto, Alberto D., Boquien, Médéric, den Brok, Jakob, Cao, Yixian, Chandar, Rupali, Chastenet, Jérémy, Chevance, Mélanie, Chiang, I-Da, Congiu, Enrico, Dale, Daniel A., Deger, Sinan, Eibensteiner, Cosima, Faesi, Christopher M., Glover, Simon C. O., Grasha, Kathryn, Groves, Brent, Hassani, Hamid, Henny, Kiana F., Henshaw, Jonathan D., Hoyer, Nils, Hughes, Annie, Jeffreson, Sarah, **Jiménez-Donaire, María J.**, Kim, Jaeyeon, Kim, Hwihyun, Klessen, Ralf S., Koch, Eric W., Kreckel, Kathryn, Kruijssen, J. M. Diederik, Li, Jing, Liu, Daizhong, Lopez, Laura A., Maschmann, Daniel, Chen, Ness Mayker, Meidt, Sharon E., Murphy, Eric J., Neumann, Justus, Neumayer, Nadine, Pan, Hsi-An, Pessa, Ismael, Pety, Jérôme, **Querejeta, Miguel**, Pinna, Francesca, Rodríguez, M. Jimena, Saito, Toshiki, Sánchez-Blázquez, Patricia, Santoro, Francesco, Sardone, Amy, Smith, Rowan J., Sormani, Mattia C., Scheuermann, Fabian, Stuber, Sophia K., Sutter, Jessica, Sun, Jiayi, Teng, Yu-Hsuan, Treß, Robin G., **Usero, Antonio**, Watkins, Elizabeth J., Whitmore, Bradley C., and Razza, Alessandro

The PHANGS-JWST Treasury Survey: Star Formation, Feedback, and Dust Physics at High Angular Resolution in Nearby Galaxies.

The Astrophysical Journal 944, L17, 02/2023

<http://dx.doi.org/10.3847/2041-8213/acaaae>

Schinnerer, Eva, Emsellem, Eric, Henshaw, Jonathan D., Liu, Daizhong, Meidt, Sharon E., **Querejeta, Miguel**, Renaud, Florent, Sormani, Mattia C., Sun, Jiayi, Egorov, Oleg V., Larson, Kirsten L., Leroy, Adam K., Rosolowsky, Erik, Sandstrom, Karin M., Williams, T. G., Barnes, Ashley. T., Bigiel, F., Chevance, Mélanie, Cao, Yixian, Chandar, Rupali, Dale, Daniel A., Eibensteiner, Cosima, Glover, Simon C. O., Grasha, Kathryn, Hannon, Stephen, Hassani, Hamid, Kim, Jaeyeon, Klessen, Ralf S., Kruijssen, J. M. Diederik, Murphy, Eric J., Neumann, Justus, Pan, Hsi-An, Pety, Jérôme, Saito, Toshiki, Stuber,

Sophia K., Treß, Robin G., **Usero, Antonio**, Watkins, Elizabeth J., Whitmore, Bradley C., and Phangs

PHANGS-JWST First Results: Rapid Evolution of Star Formation in the Central Molecular Gas Ring of NGC 1365.

The Astrophysical Journal 944, L15, 02/2023

<http://dx.doi.org/10.3847/2041-8213/acac9e>

Thilker, David A., Lee, Janice C., Deger, Sinan, Barnes, Ashley T., Bigiel, Frank, Boquien, Médéric, Cao, Yixian, Chevance, Mélanie, Dale, Daniel A., Egorov, Oleg V., Glover, Simon C. O., Grasha, Kathryn, Henshaw, Jonathan D., Klessen, Ralf S., Koch, Eric, Kruijssen, J. M. Diederik, Leroy, Adam K., Lessing, Ryan A., Meidt, Sharon E., Pinna, Francesca, **Querejeta, Miguel**, Rosolowsky, Erik, Sandstrom, Karin M., Schinnerer, Eva, Smith, Rowan J., Watkins, Elizabeth J., Williams, Thomas G., Anand, Gagandeep S., Belfiore, Francesco, Blanc, Guillermo A., Chandar, Rupali, Congiu, Enrico, Emsellem, Eric, Groves, Brent, Kreckel, Kathryn, Larson, Kirsten L., Liu, Daizhong, Pessa, Ismael, and Whitmore, Bradley C.

PHANGS-JWST First Results: The Dust Filament Network of NGC 628 and Its Relation to Star Formation Activity.

The Astrophysical Journal 944, L13, 02/2023

<http://dx.doi.org/10.3847/2041-8213/acaec>

Chastenet, Jérémy, Sutter, Jessica, Sandstrom, Karin, Belfiore, Francesco, Egorov, Oleg V., Larson, Kirsten L., Leroy, Adam K., Liu, Daizhong, Rosolowsky, Erik, Thilker, David A., Watkins, Elizabeth J., Williams, Thomas G., Barnes, Ashley T., Bigiel, F., Boquien, Médéric, Chevance, Mélanie, Dale, Daniel A., Kruijssen, J. M. Diederik, Emsellem, Eric, Grasha, Kathryn, Groves, Brent, Hassani, Hamid, Hughes, Annie, Kreckel, Kathryn, Meidt, Sharon E., Pan, Hsi-An, **Querejeta, Miguel**, Schinnerer, Eva, and Whitcomb, Cory M.

PHANGS-JWST First Results: Measuring Polycyclic Aromatic Hydrocarbon Properties across the Multiphase Interstellar Medium.

The Astrophysical Journal 944, L12, 02/2023

<http://dx.doi.org/10.3847/2041-8213/acac94>

Leroy, Adam K., Bolatto, Alberto D., Sandstrom, Karin, Rosolowsky, Erik, Barnes, Ashley T., Bigiel, F., Boquien, Médéric, den Brok, Jakob S., Cao, Yixian, Chastenet, Jérémy, Chevance, Mélanie, Chiang, I-Da, Chown, Ryan, Colombo, Dario, Ellison, Sara L., Emsellem, Eric, Grasha, Kathryn, Henshaw, Jonathan D., Hughes, Annie, Klessen, Ralf S., Koch, Eric W., Kim, Jaeyeon, Kreckel, Kathryn, Kruijssen, J. M. Diederik, Larson, Kirsten L., Lee, Janice C., Levy, Rebecca C., Lin, Lihwai, Liu, Daizhong, Meidt, Sharon E., Pety, Jérôme, **Querejeta, Miguel**, Rubio, Mónica, Saito, Toshiki, Salim, Samir, Schinnerer, Eva, Sormani, Mattia C., Sun, Jiayi, Thilker, David A., **Usero, Antonio**, Vogel, Stuart N., Watkins, Elizabeth J., Whitcomb, Cory M., Williams, Thomas G., and Wilson, Christine D.

PHANGS-JWST First Results: A Global and Moderately Resolved View of Mid-infrared and CO Line Emission from Galaxies at the Start of the JWST Era.

The Astrophysical Journal 944, L10, 02/2023

<http://dx.doi.org/10.3847/2041-8213/acab01>

Leroy, Adam K., Sandstrom, Karin, Rosolowsky, Erik, Belfiore, Francesco, Bolatto, Alberto D., Cao, Yixian, Koch, Eric W., Schinnerer, Eva, Barnes, Ashley. T., Bešlić, Ivana, Bigiel, F., Blanc, Guillermo A., Chastenet, Jérémy, Chen, Ness Mayker, Chevance, Mélanie, Chown, Ryan, Congiu, Enrico, Dale, Daniel A., Egorov, Oleg V., Emsellem, Eric, Eibensteiner, Cosima, Faesi, Christopher M., Glover, Simon C. O., Grasha, Kathryn, Groves, Brent, Hassani, Hamid, Henshaw, Jonathan D., Hughes, Annie, **Jiménez-Donaire, María J.**, Kim, Jaeyeon, Klessen, Ralf S., Kreckel, Kathryn, Kruijssen, J. M. Diederik, Larson, Kirsten L., Lee, Janice C., Levy, Rebecca C., Liu, Daizhong, Lopez, Laura A., Meidt, Sharon E., Murphy, Eric J., Neumann, Justus, Pessa, Ismael, Pety, Jérôme, Saito, Toshiki, Sardone, Amy, Sun, Jiayi, Thilker, David A., **Usero, Antonio**, Watkins, Elizabeth J., Whitcomb, Cory M., and Williams, Thomas G.

PHANGS-JWST First Results: Mid-infrared Emission Traces Both Gas Column Density and Heating at 100 pc Scales.

The Astrophysical Journal 944, L9, 02/2023

<http://dx.doi.org/10.3847/2041-8213/acaf85>

Sandstrom, Karin M., Koch, Eric W., Leroy, Adam K., Rosolowsky, Erik, Emsellem, Eric, Smith, Rowan J., Egorov, Oleg V., Williams, Thomas G., Larson, Kirsten L., Lee, Janice C., Schinnerer, Eva, Thilker, David A., Barnes, Ashley T., Belfiore, Francesco, Bigiel, F., Blanc, Guillermo A., Bolatto, Alberto D., Boquien, Médéric, Cao, Yixian, Chastenet, Jérémy, Chevance, Mélanie, Chiang, I-Da, Dale, Daniel A., Faesi, Christopher M., Glover, Simon C. O., Grasha, Kathryn, Groves, Brent, Hassani, Hamid, Henshaw, Jonathan D., Hughes, Annie, Kim, Jaeyeon, Klessen, Ralf S., Kreckel, Kathryn, Kruijssen, J. M. Diederik, Lopez, Laura A., Liu, Daizhong, Meidt, Sharon E., Murphy, Eric J., Pan, Hsi-An, **Querejeta, Miguel**, Saito, Toshiki, Sardone, Amy, Sormani, Mattia C., Sutter, Jessica, **Usero, Antonio**, and Watkins, Elizabeth J.

PHANGS-JWST First Results: Tracing the Diffuse Interstellar Medium with JWST Imaging of Polycyclic Aromatic Hydrocarbon Emission in Nearby Galaxies.

The Astrophysical Journal 944, L8, 02/2023

<http://dx.doi.org/10.3847/2041-8213/aca972>

Pacifici, Camilla, Iyer, Kartheik G., Mobasher, Bahram, da Cunha, Elisabete, Acquaviva, Viviana, Burgarella, Denis, Calistro Rivera, Gabriela, Carnall, Adam C., Chang, Yu-Yen, Chartab, Nima, Cooke, Kevin C., Fairhurst, Ciaran, Kartaltepe, Jeyhan, Leja, Joel, Matek, Katarzyna, Salmon, Brett, Torelli, Marianna, **Vidal-García, Alba**, Boquien, Médéric, Brammer, Gabriel G., Brown, Michael J. I., Capak, Peter L., Chevallard, Jacopo, Circosta, Chiara, Croton, Darren, Davidzon, Iary, Dickinson, Mark, Duncan, Kenneth J., Faber, Sandra M., Ferguson, Harry C., Fontana, Adriano, Guo, Yicheng, Haeussler, Boris, Hemmati, Shoubaneh, Jafariyazani, Marziye, Kassin, Susan A., Larson, Rebecca L., Lee, Bomee, Mantha, Kameswara Bharadwaj, Marchi, Francesca, Nayyeri, Hooshang, Newman, Jeffrey A., Pandya, Viraj, Pforr, Janine, Reddy, Naveen, Sanders, Ryan, Shah, Ekta, Shahidi, Abtin, Stevans, Matthew L., Triani, Dian Puspita, Tyler, Krystal D., Vanderhoof, Brittany N., de la Vega, Alexander, Wang, Weichen, and Weston, Madalyn E.

The Art of Measuring Physical Parameters in Galaxies: A Critical Assessment of Spectral Energy Distribution Fitting Techniques.

The Astrophysical Journal 944, 141, 02/2023

<http://dx.doi.org/10.3847/1538-4357/acacff>

Mayker Chen, Ness, Leroy, Adam K., Lopez, Laura A., Benincasa, Samantha, Chevance, Mélanie, Glover, Simon C. O., Hughes, Annie, Kreckel, Kathryn, Sarbadhicary, Sumit, Sun, Jiayi, Thompson, Todd A., Utomo, Dyas, Bigiel, Frank, Blanc, Guillermo A., Dale, Daniel A., Grasha, Kathryn, Kruijssen, J. M. Diederik, Pan, Hsi-An, **Querejeta, Miguel**, Schinnerer, Eva, Watkins, Elizabeth J., and Williams, Thomas G.

Comparing the Locations of Supernovae to CO (2-1) Emission in Their Host Galaxies.

The Astrophysical Journal 944, 110, 02/2023

<http://dx.doi.org/10.3847/1538-4357/acab00>

Sahai, Raghvendra, **Bujarrabal, Valentin**, Quintana-Lacaci, Guillermo, Reindl, Nicole, Van de Steene, Griet, Sánchez Contreras, Carmen, and Ressler, Michael E.

The Binary and the Disk: The Beauty is Found within NGC3132 with JWST.

The Astrophysical Journal 943, 110, 02/2023

<http://dx.doi.org/10.3847/1538-4357/aca7ba>

Titov, Oleg, Frey, Sándor, Melnikov, Alexey, Shu, Fengchun, Xia, Bo, González, Javier, **Tercero, Belén**, Gurvits, Leonid, de Witt, Aletha, McCallum, Jamie, Kharinov, Mikhail, Zimovsky, Vladimir, and Krezinger, Máté

Astrometric Apparent Motion of High-redshift Radio Sources.

The Astronomical Journal 165, 69, 02/2023

<http://dx.doi.org/10.3847/1538-3881/aca964>

Cernicharo, J., Pardo, J. R., Cabezas, C., Agúndez, M., **Tercero, B., Marcelino, N.**, Fuentetaja, R., Guélin, M., and de Vicente, P.

Discovery of the C₇N⁻ anion in TMC-1 and IRC +10216.

Astronomy and Astrophysics 670, L19, 02/2023

<http://dx.doi.org/10.1051/0004-6361/202245816>

Fuente, A., Rivière-Marichalar, P., Beitia-Antero, L., Caselli, P., Wakelam, V., **Esplugues, G., Rodríguez-Baras, M.**, Navarro-Almaida, D., Gerin, M., Kramer, C., **Bachiller, R.**, Goicoechea, J. R., Jiménez-Serra, I., Loison, J. C., Ivlev, A., Martín-Doménech, R., Spezzano, S., Roncero, O., Muñoz-Caro, G., Cazaux, S., and **Marcelino, N.**

Gas phase Elemental abundances in Molecular cloudS (GEMS). VII. Sulfur elemental abundance.

Astronomy and Astrophysics 670, A114, 02/2023

<http://dx.doi.org/10.1051/0004-6361/202244843>

Navarro-Almaida, D., Bop, C. T., Lique, F., **Esplugues, G., Rodríguez-Baras, M.**, Kramer, C., Romero, C. E., **Fuente, A.**, Caselli, P., **Rivière-Marichalar, P.**, Kirk, J. M., **Chacón-Tanarro, A.**, Roueff, E., Mroczkowski, T., Bhandarkar, T., Devlin, M., Dicker, S., Lowe, I., Mason, B., Sarazin, C. L., and Sievers, J.

Linking the dust and chemical evolution: Taurus and Perseus. New collisional rates for HCN, HNC, and their C, N, and H isotopologues.

Astronomy and Astrophysics 670, A110, 02/2023

<http://dx.doi.org/10.1051/0004-6361/202245000>

Belfiore, Francesco, Leroy, Adam K., Sun, Jiayi, Barnes, Ashley T., Boquien, Médéric, Cao, Yixian, Congiu, Enrico, Dale, Daniel A., Egorov, Oleg V., Eibensteiner, Cosima, Glover, Simon C. O., Grasha, Kathryn, Groves, Brent, Klessen, Ralf S., Kreckel, Kathryn, Neumann, Lukas, **Querejeta, Miguel**, Sanchez-Blazquez, Patricia, Schinnerer, Eva, and Williams, Thomas G.

Calibration of hybrid resolved star formation rate recipes based on PHANGS-MUSE H α and H β maps.

Astronomy and Astrophysics 670, A67, 02/2023

<http://dx.doi.org/10.1051/0004-6361/202244863>

Rioja, María J., Dodson, Richard, and Asaki, Yoshiharu

The Transformational Power of Frequency Phase Transfer Methods for ngEHT.

Galaxies 11, 16, 01/2023

<http://dx.doi.org/10.3390/galaxies11010016>

Jiang, Wu, Zhao, Guang-Yao, Shen, Zhi-Qiang, **Rioja, María J.**, Dodson, Richard, Cho, Ilje, Zhao, Shan-Shan, Eubanks, Marshall, and Lu, Ru-Sen

Applications of the Source-Frequency Phase-Referencing Technique for ngEHT Observations.

Galaxies 11, 3, 01/2023

<http://dx.doi.org/10.3390/galaxies11010003>

Bublitz, Jesse, Kastner, Joel H., Hily-Blant, Pierre, Forveille, Thierry, **Santander-García, Miguel**, **Alcolea, Javier**, **Bujarrabal, Valentin**, Wilner, David J., Montez, Rodolfo, and Aleman, Isabel

Mapping NGC 7027 in New Light: CO⁺ and HCO⁺ Emission Reveal Its Photon- and X-Ray-dominated Regions.

The Astrophysical Journal 942, 14, 01/2023

<http://dx.doi.org/10.3847/1538-4357/aca405>

Cernicharo, José, Cabezas, Carlos, Daniel Gallego, Juan, Tercero, Felix, López-Pérez, José Antonio, de Vicente, Pablo, **Tercero, Belén**, Tanarro, Isabel, Luis Domenech, José, Herrero, Victor J., Agúndez, Marcelino, **Marcelino, Nuria**, Ramón Pardo, Juan, Angel Martín-Gago, José, and Joblin, Christine

The Nanocosmos Receivers for Laboratory Astrophysics and Radioastronomical Observations: GACELA and QUIJOTE.

European Conference on Laboratory Astrophysics ECLA2020. The Interplay of Dust 35-49, 01/2023

http://dx.doi.org/10.1007/978-3-031-29003-9_4

Ramos Almeida, C., Esparza-Arredondo, D., González-Martín, O., García-Bernete, I., **Pereira-Santaella, M.**, Alonso-Herrero, A., Acosta-Pulido, J. A., Bessiere, P. S., Levenson, N. A., Tadhunter, C. N., Rigopoulou, D., Martínez-Paredes, M., Cazzoli, S., and García-Lorenzo, B.

Absence of nuclear polycyclic aromatic hydrocarbon emission from a compact starburst: The case of the type-2 quasar Mrk 477.

Astronomy and Astrophysics 669, L5, 01/2023

<http://dx.doi.org/10.1051/0004-6361/202245409>

Agúndez, M., Cabezas, C., **Marcelino, N.**, Fuentetaja, R., **Tercero, B.**, de Vicente, P., and Cernicharo, J.

Discovery of interstellar NC₄NH⁺: Dicyanopolyyynes are indeed abundant in space.

Astronomy and Astrophysics 669, L1, 01/2023

<http://dx.doi.org/10.1051/0004-6361/202245492>

Hsieh, T. -H., Segura-Cox, D. M., Pineda, J. E., Caselli, P., Bouscasse, L., Neri, R., Lopez-Sepulcre, A., Valdivia-Mena, M. T., Maureira, M. J., Henning, Th., Smirnov-Pinchukov, G. V., Semenov, D., Möller, Th., Cunningham, N., **Fuente, A.**, Marino, S., Dutrey, A., **Tafalla, M.**, Chapillon, E., Ceccarelli, C., and Zhao, B.

PRODIGE - envelope to disk with NOEMA. II. Small-scale temperature structure and streamer feeding the SVS13A protobinary based on CH₃CN and DCN.

Astronomy and Astrophysics 669, A137, 01/2023

<http://dx.doi.org/10.1051/0004-6361/202244183>

Donnan, F. R., Rigopoulou, D., García-Bernete, I., **Pereira-Santaella, M.**, Alonso-Herrero, A., Roche, P. F., Aalto, S., Hernán-Caballero, A., and Spoon, H. W. W.

A detailed look at the most obscured galactic nuclei in the mid-infrared.

Astronomy and Astrophysics 669, A87, 01/2023

<http://dx.doi.org/10.1051/0004-6361/202244937>