

# Onsala Space Observatory, Chalmers

## Publication list 2012

Compiled by Magnus Thomasson

Publications in refereed journals 2012 enabled by the Onsala infrastructure are recorded below.

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

[Astronomy: APEX](#)

[Astronomy: ALMA](#)

[Astronomy: VLBI](#)

[Astronomy: LOFAR](#)

[Geoscience](#)

### **Astronomy: Onsala 20 m telescope (single-dish)**

*Gas–grain models for interstellar anion chemistry.*

M. A. Cordiner and S. B. Charnley.

The Astrophysical Journal, 749:120 (2012)

*APEX-CHAMP+ high-J CO observations of low-mass young stellar objects III. NGC 1333 IRAS 4A/4B envelope, outflow, and ultraviolet heating.*

Umut A. Yıldız, Lars E. Kristensen, Ewine F. van Dishoeck, Arnaud Belloche, Tim A. van Kempen, Michiel R. Hogerheijde, Rolf Güsten, and Nienke van der Marel.

Astron. Astrophys. 542, A86 (2012)

### **Astronomy: APEX**

Publications from all APEX partner's observing time.

*First Science Observations with SOFIA/FORCAST: Properties of Intermediate-luminosity Protostars and Circumstellar Disks in OMC-2.*

Adams, Joseph D., Herter, Terry L., Osorio, Mayra, Macias, Enrique, Megeath, S. Thomas, Fischer, William J., Ali, Babar, Calvet, Nuria, D'Alessio, Paola, De Buizer, James M., Gull, George E., Henderson, Charles P., Keller, Luke D., Morris, Mark R., Remming, Ian S., Schoenwald, Justin, Shuping, Ralph Y., Stacey, Gordon, Stanke, Thomas, Stutz, Amelia, Vacca, William.

ApJ 749, L24 (2012)

*The dust properties of bubble H II regions as seen by Herschel.*

Anderson, L. D., Zavagno, A., Deharveng, L., Abergel, A., Motte, F., André, Ph., Bernard, J.-P., Bontemps, S., Hennemann, M., Hill, T., Rodón, J. A., Roussel, H., Russeil, D.

A&A 542 A10 (2012)

*The onset of high-mass star formation in the direct vicinity of the Galactic mini-starburst W43.*

Beuther, H., Tackenberg, J., Linz, H., Henning, Th., Krause, O., Ragan, S., Nielbock, M., Launhardt, R., Schmiedeke, A., Schuller, F., Carlhoff, P., Nguyen-Luong, Q., Sakai, T. *A&A* 538 A11- (2012)

*Galactic Structure Based on the ATLASGAL 870  $\mu\text{m}$  Survey.*

Beuther, H., Tackenberg, J., Linz, H., Henning, Th., Schuller, F., Wyrowski, F., Schilke, P., Menten, K., Robitaille, T. P., Walmsley, C. M., Bronfman, L., Motte, F., Nguyen-Luong, Q., Bontemps, S.  
*ApJ* 747 -43 (2012)

*Submillimetre observations of X-ray active galactic nuclei in the William Herschel Deep Field.*

Bielby, R. M., Hill, M. D., Metcalfe, N., Shanks, T.  
*MNRAS* 419 1315-1323 (2012)

*On the massive young stellar object AFGL 4176. High-spatial-resolution multi-wavelength observations and modelling.*

Boley, P. A., Linz, H., van Boekel, R., Bouwman, J., Henning, T., Sobolev, A. M.  
*A&A* 547 A88- (2012)

*The warm gas atmosphere of the HD 100546 disk seen by Herschel. Evidence of a gas-rich, carbon-poor atmosphere?*

Bruderer, S., van Dishoeck, E. F., Doty, S. D., Herczeg, G. J.  
*A&A* 541 -91 (2012)

*CO observations of water-maser post-asymptotic giant branch stars and detection of a high-velocity outflow in IRAS 15452-5459.*

Cerrigone, L., Menten, K. M., Kamiński, T.  
*A&A* 542 -15 (2012)

*Herschel-PACS observations of [OI]63  $\mu\text{m}$  towards submillimetre galaxies at  $z \sim 1$ .*

K. E. K. Coppin, A. L. R. Danielson, J. E. Geach, J. A. Hodge, A. M. Swinbank, J. L. Wardlow, F. Bertoldi, A. Biggs, W. N. Brandt, P. Caselli, S. C. Chapman, H. Dannerbauer, J. S. Dunlop, T. R. Greve, F. Hamann, R. J. Ivison, A. Karim, K. K. Knudsen, K. M. Menten, E. Schinnerer, Ian Smail, M. Spaans, F. Walter, T. M. A. Webb and P. P. van der Werf.  
*Mon. Not. R. Astron. Soc.* 427, 520 (2012)

*Limits on dust emission from  $z \sim 5$  LBGs and their local environments.*

Davies, L. J. M., Bremer, M. N., Stanway, E. R., Mannering, E., Lehnert, M. D., Omont, A.  
*MNRAS* 425 153-161 (2012)

*Pre-ALMA observations of GRBs in the mm/submm range.*

de Ugarte Postigo, A., Lundgren, A., Martín, S., Garcia-Appadoo, D., de Gregorio Monsalvo, I., Peck, A., Michałowski, M. J., Thöne, C. C., Campana, S., Gorosabel, J., Tanvir, N. R., Wiersema, K., Castro-Tirado, A. J., Schulze, S., De Breuck, C., Petitpas, G., Hjorth, J., Jakobsson, P., Covino, S., Fynbo, J. P. U., Winters, J. M., Bremer, M., Levan, A. J., Llorente, A., Sánchez-Ramírez, R., Tello, J. C., Salvaterra, R.  
A&A 538 A44- (2012)

*Millimeter to X-ray flares from Sagittarius A\*.*

Eckart, A., García-Marín, M., Vogel, S. N., Teuben, P., Morris, M. R., Baganoff, F., Dexter, J., Schödel, R., Witzel, G., Valencia-S., M., Karas, V., Kunneriath, D., Straubmeier, C., Moser, L., Sabha, N., Buchholz, R., Zamaninasab, M., Mužić, K., Moultaqa, J., Zensus, J. A.  
A&A 537 A52- (2012)

*Multiwavelength Observations of V2775 Ori, an Outbursting Protostar in L 1641: Exploring the Edge of the FU Orionis Regime.*

Fischer, William J., Megeath, S. Thomas, Tobin, John J., Stutz, Amelia M., Ali, Babar, Remming, Ian, Kounkel, Marina, Stanke, Thomas, Osorio, Mayra, Henning, Thomas, Manoj, P., Wilson, T. L.  
ApJ 756 -99 (2012)

*High CO depletion in southern infrared dark clouds.*

Fontani, F., Giannetti, A., Beltrán, M. T., Dodson, R., Rioja, M., Brand, J., Caselli, P., Cesaroni, R.  
MNRAS 423 2342-2358 (2012)

*A Comprehensive View of a Strongly Lensed Planck-Associated Submillimeter Galaxy.*

Fu, Hai, Jullo, E., Cooray, A., Bussmann, R. S., Ivison, R. J., Pérez-Fournon, I., Djorgovski, S. G., Scoville, N., Yan, L., Riechers, D. A., Aguirre, J., Auld, R., Baes, M., Baker, A. J., Bradford, M., Cava, A., Clements, D. L., Dannerbauer, H., Dariush, A., De Zotti, G., Dole, H., Dunne, L., Dye, S., Eales, S., Frayer, D., Gavazzi, R., Gurwell, M., Harris, A. I., Herranz, D., Hopwood, R., Hoyos, C., Ibar, E., Jarvis, M. J., Kim, S., Leeuw, L., Lupu, R., Maddox, S., Martínez-Navajas, P., Michałowski, M. J., Negrello, M., Omont, A., Rosenman, M., Scott, D., Serjeant, S., Smail, I., Swinbank, A. M., Valiante, E., Verma, A., Vieira, J., Wardlow, J. L., van der Werf, P.  
ApJ 753 -134 (2012)

*Molecular clouds under the influence of massive stars in the Galactic Hii region G353.2+0.9.*

Giannetti, A., Brand, J., Massi, F., Tieftrunk, A., Beltrán, M. T.  
A&A 538 A41- (2012)

*Simultaneous Planck, Swift, and Fermi observations of X-ray and  $\gamma$ -ray selected blazars.*

Giommi, P., Polenta, G., Lähteenmäki, A., Thompson, D. J., Capalbi, M., Cutini, S., Gasparrini, D., González-Nuevo, J., León-Tavares, J., López-Caniego, M., Mazziotta, M. N., Monte, C., Perri, M., Rainò, S., Tosti, G., Tramacere, A., Verrecchia, F., Aller, H. D., Aller, M. F., Angelakis, E., Bastieri, D., Berdyugin, A., Bonaldi, A., Bonavera, L., Burigana, C., Burrows, D. N., Buson, S., Cavazzuti, E., Chincarini, G., Colafrancesco, S., Costamante, L., Cuttaia, F., D'Ammando, F., de Zotti, G., Frailis, M., Fuhrmann, L., Galeotta, S., Gargano, F., Gehrels, N., Giglietto, N., Giordano, F., Giroletti, M., Keihänen, E., King, O., Krichbaum, T. P., Lasenby, A., Lavonen, N., Lawrence, C. R., Leto, C., Lindfors, E., Mandolesi, N., Massardi, M., Max-Moerbeck, W., Michelson, P. F., Mingaliev, M., Natoli, P., Nestoras, I., Nieppola, E., Nilsson, K., Partridge, B., Pavlidou, V., Pearson, T. J., Procopio, P., Rachen, J. P., Readhead, A., Reeves, R., Reimer, A., Reinthal, R., Ricciardi, S., Richards, J., Riquelme, D., Saarinen, J., Sajina, A., Sandri, M., Savolainen, P., Sievers, A., Sillanpää, A., Sotnikova, Y., Stevenson, M., Tagliaferri, G., Takalo, L., Tammi, J., Tavagnacco, D., Terenzi, L., Toffolatti, L., Tornikoski, M., Trigilio, C., Turunen, M., Umana, G., Ungerechts, H., Villa, F., Wu, J., Zacchei, A., Zensus, J. A., Zhou, X.  
A&A 541 -160 (2012)

*Submillimeter Observations of Millimeter Bright Galaxies Discovered by the South Pole Telescope.*

Greve, T. R., Vieira, J. D., Weiß, A., Aguirre, J. E., Aird, K. A., Ashby, M. L. N., Benson, B. A., Bleem, L. E., Bradford, C. M., Brodwin, M., Carlstrom, J. E., Chang, C. L., Chapman, S. C., Crawford, T. M., de Breuck, C., de Haan, T., Dobbs, M. A., Downes, T., Fassnacht, C. D., Fazio, G., George, E. M., Gladders, M., Gonzalez, A. H., Halverson, N. W., Hezaveh, Y., High, F. W., Holder, G. P., Holzappel, W. L., Hoover, S., Hrubes, J. D., Johnson, M., Keisler, R., Knox, L., Lee, A. T., Leitch, E. M., Lueker, M., Luong-Van, D., Malkan, M., Marrone, D. P., McIntyre, V., McMahan, J. J., Mehl, J., Menten, K. M., Meyer, S. S., Montroy, T., Murphy, E. J., Natoli, T., Padin, S., Plagge, T., Pryke, C., Reichardt, C. L., Rest, A., Rosenman, M., Ruel, J., Ruhl, J. E., Schaffer, K. K., Sharon, K., Shaw, L., Shirokoff, E., Stalder, B., Stanford, S. A., Staniszewski, Z., Stark, A. A., Story, K., Vanderlinde, K., Walsh, W., Welikala, N., Williamson, R.  
ApJ 756 -101 (2012)

*Turbulent Molecular Gas and Star Formation in the Shocked Intergalactic Medium of Stephan's Quintet.*

Guillard, P., Boulanger, F., Pineau des Forêts, G., Falgarone, E., Gusdorf, A., Cluver, M. E., Appleton, P. N., Lisenfeld, U., Duc, P.-A., Ogle, P. M., Xu, C. K.  
ApJ 749 -158 (2012)

*Probing magnetohydrodynamic shocks with high-J CO observations: W28F.*

Gusdorf, A., Anderl, S., Güsten, R., Stutzki, J., Hübers, H.-W., Hartogh, P., Heyminck, S., Okada, Y. A&A 542 L19- (2012)

*Search for Ionized Jets toward High-mass Young Stellar Objects.*

Guzmán, Andrés E., Garay, Guido, Brooks, Kate J., Voronkov, Maxim A.  
ApJ 753 -51 (2012)

*Flares and variability from Sagittarius A\*: five nights of simultaneous multi-wavelength observations.*

Haubois, X., Dodds-Eden, K., Weiss, A., Paumard, T., Perrin, G., Clénet, Y., Gillessen, S., Kervella, P., Eisenhauer, F., Genzel, R., Rouan, D.  
A&A 540 A41- (2012)

*The LABOCA survey of the Extended Chandra Deep Field-South: clustering of submillimetre galaxies.*

Hickox, Ryan C., Wardlow, J. L., Smail, Ian, Myers, A. D., Alexander, D. M., Swinbank, A. M., Danielson, A. L. R., Stott, J. P., Chapman, S. C., Coppin, K. E. K., Dunlop, J. S., Gawiser, E., Lutz, D., van der Werf, P., Weiß, A.  
MNRAS 421 284-295 (2012)

*Resolving the Vela C ridge with P-ArTéMiS and Herschel.*

Hill, T., André, Ph., Arzoumanian, D., Motte, F., Minier, V., Men'shchikov, A., Didelon, P., Hennemann, M., Könyves, V., Nguyen-Luong, Q., Palmeirim, P., Peretto, N., Schneider, N., Bontemps, S., Louvet, F., Elia, D., Giannini, T., Revéret, V., Le Penneç, J., Rodriguez, L., Boulade, O., Doumayrou, E., Dubreuil, D., Gallais, P., Lortholary, M., Martignac, J., Talvard, M., De Breuck, C.  
A&A 548 L6- (2012)

*Herschel observations of a  $z \sim 2$  stellar mass selected galaxy sample drawn from the GOODS NICMOS Survey.*

Hilton, M., Conselice, C. J., Roseboom, I. G., Burgarella, D., Buat, V., Berta, S., Béthermin, M., Bock, J., Chapman, S. C., Clements, D. L., Conley, A., Conversi, L., Cooray, A., Farrah, D., Ibar, E., Magdis, G., Magnelli, B., Marsden, G., Nordon, R., Oliver, S. J., Page, M. J., Popesso, P., Pozzi, F., Schulz, B., Scott, Douglas, Smith, A. J., Symeonidis, M., Valtchanov, I., Viero, M., Wang, L., Zemcov, M.  
MNRAS 425 540-555 (2012)

*A multi-wavelength view of the Galactic center dust ridge reveals little star formation.*

Immer, K., Menten, K. M., Schuller, F., Lis, D. C.  
A&A 548 A120- (2012)

*Molecular gas and dust in the highly magnified  $z \sim 2.8$  galaxy behind the Bullet Cluster.*

D. Johansson, C. Horellou, O. Lopez-Cruz, S. Muller, M. Birkinshaw, J. H. Black, M. N. Bremer, W. F. Wall, F. Bertoldi, E. Castillo, and H. J. Ibarra-Medel.  
Astron. Astrophys. 543, A62 (2012)

*The 2008 Outburst of EX Lup—Silicate Crystals in Motion.*

Juhász, A., Dullemond, C. P., van Boekel, R., Bouwman, J., Ábrahám, P., Acosta-Pulido, J. A., Henning, Th., Kóspál, A., Sicilia-Aguilar, A., Jones, A., Moór, A., Mosoni, L., Regály, Zs., Szokoly, Gy., Sipos, N.  
ApJ 744 -118 (2012)

*A Corona Australis cloud filament seen in NIR scattered light. III. Modelling and comparison with Herschel sub-millimetre data.*

Juvela, M., Pelkonen, V.-M., White, G. J., Könyves, V., Kirk, J., André, P.  
A&A 544 A14- (2012)

*GOODS-Herschel: Impact of Active Galactic Nuclei and Star Formation Activity on Infrared Spectral Energy Distributions at High Redshift.*

Kirkpatrick, Allison, Pope, Alexandra, Alexander, David M., Charmandaris, Vassilis, Daddi, Emmanuele, Dickinson, Mark, Elbaz, David, Gabor, Jared, Hwang, Ho Seong, Ivison, Rob, Mullaney, James, Pannella, Maurilio, Scott, Douglas, Altieri, Bruno, Aussel, Herve, Bournaud, Frédéric, Buat, Veronique, Coia, Daniela, Dannerbauer, Helmut, Dasyra, Kalliopi, Kartaltepe, Jeyhan, Leiton, Roger, Lin, Lihwai, Magdis, Georgios, Magnelli, Benjamin, Morrison, Glenn, Popesso, Paola, Valtchanov, Ivan.  
ApJ 759 -139 (2012)

*Water in star-forming regions with Herschel (WISH) II. Evolution of 557 GHz  $1_{10}$ - $1_{01}$  emission in low-mass protostars.*

L. E. Kristensen, E. F. van Dishoeck, E. A. Bergin, R. Visser, U. A. Yıldız, I. San Jose-Garcia, J. K. Jørgensen, G. J. Herczeg, D. Johnstone, S. F. Wampfler, A. O. Benz, S. Bruderer, S. Cabrit, P. Caselli, S. D. Doty, D. Harsono, F. Herpin, M. R. Hogerheijde, A. Karska, T. A. van Kempen, R. Liseau, B. Nisini, M. Tafalla, F. van der Tak, and F. Wyrowski.  
Astron. Astrophys. 542, A8 (2012)

*Panchromatic Estimation of Star Formation Rates in BzK Galaxies at  $1 < z < 3$ .*

Kurczynski, Peter, Gawiser, Eric, Huynh, Minh, Ivison, Rob J., Treister, Ezequiel, Smail, Ian, Blanc, Guillermo A., Cardamone, Carolin N., Greve, Thomas R., Schinnerer, Eva, Urry, Meg, van der Werf, Paul.  
ApJ 750 -117 (2012)

*Zooming in on Supernova 1987A at submillimetre wavelengths.*

Lakićević, M., van Loon, J. Th., Stanke, T., De Breuck, C., Patat, F.  
A&A 541 L1- (2012)

*Massive Star Formation toward G28.87+0.07 (IRAS 18411-0338) Investigated by Means of Maser Kinematics and Radio to Infrared Continuum Observations.*

Li, J. J., Moscadelli, L., Cesaroni, R., Furuya, R. S., Xu, Y., Usuda, T., Menten, K. M., Pestalozzi, M., Elia, D., Schisano, E.  
ApJ 749 -47 (2012)

*Strong irradiation of protostellar cores in Corona Australis.*

Lindberg, J. E., Jørgensen, J. K.  
A&A 548 -24 (2012)

*Molecules in  $\eta$  Carinae.*

Loinard, Laurent, Menten, Karl M., Güsten, Rolf, Zapata, Luis A., Rodríguez, Luis F.  
ApJ 749 L4- (2012)

*The Evolving Interstellar Medium of Star-forming Galaxies since  $z = 2$  as Probed by Their Infrared Spectral Energy Distributions.*

Magdis, Georgios E., Daddi, E., Béthermin, M., Sargent, M., Elbaz, D., Pannella, M., Dickinson, M., Dannerbauer, H., da Cunha, E., Walter, F., Rigopoulou, D., Charmandaris, V., Hwang, H. S., Kartaltepe, J.  
ApJ 760 -6 (2012)

*A Herschel view of the far-infrared properties of submillimetre galaxies.*

Magnelli, B., Lutz, D., Santini, P., Saintonge, A., Berta, S., Albrecht, M., Altieri, B., Andreani, P., Aussel, H., Bertoldi, F., Béthermin, M., Bongiovanni, A., Capak, P., Chapman, S., Cepa, J., Cimatti, A., Cooray, A., Daddi, E., Danielson, A. L. R., Dannerbauer, H., Dunlop, J. S., Elbaz, D., Farrah, D., Förster Schreiber, N. M., Genzel, R., Hwang, H. S., Ibar, E., Ivison, R. J., Le Floch, E., Magdis, G., Maiolino, R., Nordon, R., Oliver, S. J., Pérez García, A., Poglitsch, A., Popesso, P., Pozzi, F., Riguccini, L., Rodighiero, G., Rosario, D., Roseboom, I., Salvato, M., Sanchez-Portal, M., Scott, D., Smail, I., Sturm, E., Swinbank, A. M., Tacconi, L. J., Valtchanov, I., Wang, L., Wuyts, S.  
A&A 539 A155- (2012)

*A (sub)millimetre study of dense cores in Orion B9\**

Miettinen, O., Harju, J., Haikala, L. K., Juvela, M.  
A&A 538 -137 (2012)

*A molecular line study of the filamentary infrared dark cloud G304.74+01.32.*

Miettinen, O.  
A&A 540 -104 (2012)

*LABOCA 870  $\mu\text{m}$  dust continuum mapping of selected infrared-dark cloud regions in the Galactic plane.*

Miettinen, O.  
A&A 542 -101 (2012)

*13CO and C18O  $J = 2-1$  mapping of the environment of the Class 0 protostellar core SMM 3 in Orion B9.*

Miettinen, O.  
A&A 545 -3 (2012)

*The Earliest Phases of Star formation (EPoS) observed with Herschel: the dust temperature and density distributions of B68.*

Nielbock, M., Launhardt, R., Steinacker, J., Stutz, A. M., Balog, Z., Beuther, H., Bouwman, J., Henning, Th., Hily-Blant, P., Kainulainen, J., Krause, O., Linz, H., Lippok, N., Ragan, S., Risacher, C., Schmiedeke, A.  
A&A 547 A11- (2012)

*Jet-driving protostars identified from infrared observations of the Carina Nebula complex.*

Ohlendorf, H., Preibisch, T., Gaczkowski, B., Ratzka, T., Grellmann, R., McLeod, A. F.  
A&A 540 A81- (2012)

*A search for pre-substellar cores and proto-brown dwarf candidates in Taurus: multiwavelength analysis in the B213-L1495 clouds.*

Palau, Aina, de Gregorio-Monsalvo, I., Morata, Ò., Stamatellos, D., Huélamo, N., Eiroa, C., Bayo, A., Morales-Calderón, M., Bouy, H., Ribas, Á., Asmus, D., Barrado, D.  
MNRAS 424 2778-2791 (2012)

*Detection of the hydroperoxyl radical HO<sub>2</sub> toward  $\rho$  Ophiuchi A. Additional constraints on the water chemical network.*

B. Parise, P. Bergman, and F. Du.  
Astron. Astrophys. 541, L11 (2012)

*Detection of OD towards the low-mass protostar IRAS 16293-2422.*

Parise, B., Du, F., Liu, F.-C., Belloche, A., Wiesemeyer, H., Güsten, R., Menten, K. M., Hübers, H.-W., Klein, B.  
A&A 542 L5- (2012)

*The APEX-CHAMP+ view of the Orion Molecular Cloud 1 core. Constraining the excitation with submillimeter CO multi-line observations.*

Peng, T.-C., Wyrowski, F., Zapata, L. A., Güsten, R., Menten, K. M.  
A&A 538 -12 (2012)

*Mid-J CO emission from the Orion BN/KL explosive outflow.*

Peng, T.-C., Zapata, L. A., Wyrowski, F., Güsten, R., Menten, K. M.  
A&A 544 L19- (2012)

*The Earliest Phases of Star Formation (EPoS): a Herschel key program. The precursors to high-mass stars and clusters.*

Ragan, S., Henning, Th., Krause, O., Pitann, J., Beuther, H., Linz, H., Tackenberg, J., Balog, Z., Hennemann, M., Launhardt, R., Lippok, N., Nielbock, M., Schmiedeke, A., Schuller, F., Steinacker, J., Stutz, A., Vasyunina, T.  
A&A 547 A49- (2012)

*An HST Imaging Survey of Low-mass Stars in the Chamaeleon I Star-forming Region.*

Robberto, M., Spina, L., Da Rio, N., Apai, D., Pascucci, I., Ricci, L., Goddi, C., Testi, L., Palla, F., Bacciotti, F.  
AJ 144 -83 (2012)

*The Nature of Transition Circumstellar Disks. II. Southern Molecular Clouds.*

Romero, Gisela A., Schreiber, Matthias R., Cieza, Lucas A., Rebassa-Mansergas, Alberto, Merín, Bruno, Smith Castelli, Analía V., Allen, Lori E., Morrell, Nidia  
ApJ 749 -79 (2012)

*GOODS-Herschel: ultra-deep XMM-Newton observations reveal AGN/star-formation connection.*

Rovilos, E., Comastri, A., Gilli, R., Georgantopoulos, I., Ranalli, P., Vignali, C., Lusso, E., Cappelluti, N., Zamorani, G., Elbaz, D., Dickinson, M., Hwang, H. S., Charmandaris, V., Ivison, R. J., Merloni, A., Daddi, E., Carrera, F. J., Brandt, W. N., Mullaney, J. R., Scott, D., Alexander, D. M., Del Moro, A., Morrison, G., Murphy, E. J., Altieri, B., Aussel, H., Dannerbauer, H., Kartaltepe, J., Leiton, R., Magdis, G., Magnelli, B., Popesso, P., Valtchanov, I.  
A&A 546 A58- (2012)

*Are Large, Cometary-shaped Proplyds Really (Free-floating) Evaporating Gas Globules?*

Sahai, R., Güsten, R., Morris, M. R.  
ApJ 761 L21- (2012)

*Rapid Coeval Black Hole and Host Galaxy Growth in MRC 1138-262: The Hungry Spider.*  
Seymour, N., Altieri, B., De Breuck, C., Barthel, P., Coia, D., Conversi, L., Dannerbauer, H., Dey, A., Dickinson, M., Drouart, G., Galametz, A., Greve, T. R., Haas, M., Hatch, N., Ibar, E., Ivison, R., Jarvis, M., Kovács, A., Kurk, J., Lehnert, M., Miley, G., Nesvadba, N., Rawlings, J. I., Rettura, A., Röttgering, H., Rocca-Volmerange, B., Sánchez-Portal, M., Santos, J. S., Stern, D., Stevens, J., Valtchanov, I., Vernet, J., Wylezalek, D.  
ApJ 755 -146 (2012)

*Millimeter imaging of submillimeter galaxies in the COSMOS field: redshift distribution.*  
Smolčić, V., Aravena, M., Navarrete, F., Schinnerer, E., Riechers, D. A., Bertoldi, F., Feruglio, C., Finoguenov, A., Salvato, M., Sargent, M., McCracken, H. J., Albrecht, M., Karim, A., Capak, P., Carilli, C. L., Cappelluti, N., Elvis, M., Ilbert, O., Kartaltepe, J., Lilly, S., Sanders, D., Sheth, K., Scoville, N. Z., Taniguchi, Y.  
A&A 548 A4- (2012)

*An ALMA survey of submillimetre galaxies in the Extended Chandra Deep Field-South: detection of [C II] at  $z = 4.4$ .*  
A. M. Swinbank, A. Karim, Ian Smail, J. Hodge, F. Walter, F. Bertoldi, A. D. Biggs, C. de Breuck, S. C. Chapman, K. E. K. Coppin, P. Cox, A. L. R. Danielson, H. Dannerbauer, R. J. Ivison, T. R. Greve, K. K. Knudsen, K. M. Menten, J. M. Simpson, E. Schinnerer, J. L. Wardlow, A. Weiß and P. van der Werf.  
Mon. Not. R. Astron. Soc. 427, 1066 (2012)

*Search for starless clumps in the ATLASGAL survey.*  
Tackenberg, J., Beuther, H., Henning, T., Schuller, F., Wienen, M., Motte, F., Wyrowski, F., Bontemps, S., Bronfman, L., Menten, K., Testi, L., Lefloch, B.  
A&A 540 A113- (2012)

*Measuring star formation in high- $z$  massive galaxies: a mid-infrared to submillimetre study of the GOODS NICMOS Survey sample.*  
Viero, M. P., Moncelsi, L., Mentuch, E., Buitrago, F., Bauer, A. E., Chapin, E. L., Conelice, C. J., Devlin, M. J., Halpern, M., Marsden, G., Netterfield, C. B., Pascale, E., Pérez-González, P. G., Rex, M., Scott, D., Smith, M. W. L., Truch, M. D. P., Trujillo, I., Wiebe, D. V.  
MNRAS 421 2161-2169 (2012)

*Modelling Herschel observations of hot molecular gas emission from embedded low-mass protostars.*  
Visser, R., Kristensen, L. E., Bruderer, S., van Dishoeck, E. F., Herczeg, G. J., Brinch, C., Doty, S. D., Harsono, D., Wolfire, M. G.  
A&A 537 A55- (2012)

*Ammonia from cold high-mass clumps discovered in the inner Galactic disk by the ATLASGAL survey.*  
Wienen, M., Wyrowski, F., Schuller, F., Menten, K. M., Walmsley, C. M., Bronfman, L., Motte, F.  
A&A 544 A146- (2012)

*The Carina Flare. What can fragments in the wall tell us?*

Wünsch, R., Jáchym, P., Sidorin, V., Ehlerová, S., Palouš, J., Dale, J., Dawson, J. R., Fukui, Y.

A&A 539 A116- (2012)

*Terahertz ammonia absorption as a probe of infall in high-mass star forming clumps.*

Wyrowski, F., Güsten, R., Menten, K. M., Wiesemeyer, H., Klein, B.

ApJ 744 -178 (2012)

*Constraining Dust and Molecular Gas Properties in Ly $\alpha$  Blobs at  $z \sim 3$ .*

Yang, Yujin, Decarli, Roberto, Dannerbauer, Helmut, Walter, Fabian, Weiss, Axel, Leipski, Christian, Dey, Arjun, Chapman, Scott C., Le Floch, Emeric, Prescott, Moire K. M., Neri, Roberto, Borys, Colin, Matsuda, Yuichi, Yamada, Toru, Hayashino, Tomoki, Tapken, Christian, Menten, Karl M.

ApJ 744 -178 (2012)

*APEX-CHAMP+ high-J CO observations of low-mass young stellar objects. III. NGC 1333 IRAS 4A/4B envelope, outflow, and ultraviolet heating.*

Yıldız, Umut A., Kristensen, Lars E., van Dishoeck, Ewine F., Belloche, Arnaud, van Kempen, Tim A., Hogerheijde, Michiel R., Güsten, Rolf, van der Marel, Nienke.

A&A 542 -86 (2012)

*Deep 1.1 mm-wavelength imaging of the GOODS-S field by AzTEC/ASTE - II. Redshift distribution and nature of the submillimetre galaxy population.*

Yun, Min S., Scott, K. S., Guo, Yicheng, Aretxaga, I., Giavalisco, M., Austermann, J. E., Capak, P., Chen, Yuxi, Ezawa, H., Hatsukade, B., Hughes, D. H., Iono, D., Johnson, S., Kawabe, R., Kohno, K., Lowenthal, J., Miller, N., Morrison, G., Oshima, T., Perera, T. A., Salvato, M., Silverman, J., Tamura, Y., Williams, C. C., Wilson, G. W.

MNRAS 420 957-985 (2012)

## **Astronomy: ALMA**

Publications resulting from ALMA observations and with Nordic ARC node involvement.

*Unexpectedly large mass loss during the thermal pulse cycle of the red giant star R Sculptoris.*

M. Maercker, S. Mohamed, W. H. T. Vlemmings, S. Ramstedt, M. A. T. Groenewegen, E. Humphreys, F. Kerschbaum, M. Lindqvist, H. Olofsson, C. Paladini, M. Wittkowski, I. de Gregorio-Monsalvo & L.-A. Nyman.

Nature 490, 232 (2012)

## **Astronomy: VLBI**

Publications resulting from observations with EVN and GMVA, or using JIVE.

*The 2010 very high energy  $\gamma$ -ray flare and 10 years of multi-wavelength observations of M 87.*

A. Abramowski et al. (> 400 authors).

The Astrophysical Journal, 746:151 (2012)

*A search for active galactic nuclei in the most extreme UV-selected starbursts using the European VLBI Network.*

Alexandroff, R., Overzier, R. A., Paragi, Z., et al:  
Monthly Notices of the Royal Astronomical Society, 423, 1325 (2012)

*VLBI Observations of 10 Compact Symmetric Object Candidates: Expansion Velocities of Hot Spots,*

An, T., Wu, F., Yang, J., Taylor, G. B., Hong, X., et al,  
Astrophysical Journal Supplement Series, 198, 5 (2012)

*The Structure of the M87 Jet: A Transition from Parabolic to Conical Streamlines,*

Asada, K., Nakamura, M.  
The Astrophysical Journal Letters, 745, L28 (2012)

*Milliarcsecond structure of water maser emission in two young high-mass stellar objects associated with methanol masers,*

Bartkiewicz, A., Szymczak, M., van Langevelde, H. J.  
Astronomy and Astrophysics, 541, 72 (2012)

*Rapid variability of the compact radio sources in Arp220. Evidence for a population of microblazars?*

F. Batejat, J. E. Conway, A. Rushton, R. Parra, P. J. Diamond, C. J. Lonsdale, and C. J. Lonsdale.  
Astron. Astrophys. 542, L24 (2012)

*The nuclear starburst in Arp 299-A: from the 5.0 GHz VLBI radio light-curves to its core-collapse supernova rate,*

Bondi, M., Pérez-Torres, M. A., Herrero-Illana, R., Alberdi, A.  
Astronomy and Astrophysics, 539, 134 (2012)

*Physical properties of the nuclear region in Seyfert galaxies derived from observations with the European VLBI Network,*

Bontempi, P., Giroletti, M., Panessa, F., Orienti, M., Doi, A.  
Monthly Notices of the Royal Astronomical Society, 426, 588 (2012)

*Black Hole Powered Nebulae and a Case Study of the Ultraluminous X-Ray Source IC 342 X-1,*

Cseh, D., Corbel, S., Kaaret, P., et al  
The Astrophysical Journal, 749, 17 (2012)

*A Parallax Distance and Mass Estimate for the Transitional Millisecond Pulsar System J1023+0038,*

Deller, A. T., Archibald, A. M., Brisken, W. F., Chatterjee, S., Janssen, G. H., Kaspi, V. M., Lorimer, D., Lyne, A. G., McLaughlin, M. A., Ransom, S., Stairs, I. H., Stappers, B.,  
The Astrophysical Journal Letters, 756, L25 (2012)

*The Proper Motion of PSR J1550-5418 Measured with VLBI: A Second Magnetar Velocity Measurement,*

Deller, A. T., Camilo, F., Reynolds, J. E., Halpern, J. P.,  
The Astrophysical Journal Letters, 748, L1 (2012)

*Jet-Launching Structure Resolved Near the Supermassive Black Hole in M87,*

Doeleman, S.S., Fish, V.L., Schenck, D.E., Beaudoin, C., Blundell, R., Bower, G.C.,  
Broderick, A.E., Chamberlin, R., Freund, R., Friberg, P., Gurwell, M.A., Ho, P.T.P., Honma,  
M., Inoue, M., Krichbaum, T.P., Lamb, J., Loeb, A., Lonsdale, C., Marrone, D.P., Moran,  
J.M., Oyama, T., Plambeck, R., Primiani, R.A., Rogers, A.E.E., Smythe, D.L., SooHoo, J.,  
Strittmatter, P., Tilanus, R.P.J., Titus, M., Weintraub, J., Wright, M., Young, K.H., Ziurys, L.  
Science, 338, 355 (2012)

*Two in one? A possible dual radio-emitting nucleus in the quasar SDSS J1425+3231,*

Frey, S., Paragi, Z., An, T., Gabányi, K. É.  
Monthly Notices of the Royal Astronomical Society, 425, 1185 (2012)

*The kinematic of HST-1 in the jet of M 87,*

Giroletti, M., Hada, K., Giovannini, G., et al  
Astronomy and Astrophysics, 538, L10 (2012)

*Evidence of nuclear disks in starburst galaxies from their radial distribution of supernovae,*

Herrero-Illana, R., Pérez-Torres, M. A., Alberdi, A.  
Astronomy and Astrophysics, 540, L5 (2012)

*Fundamental Parameters of the Milky Way Galaxy Based on VLBI astrometry,*

Honma, M., Nagayama, T., Ando, K., et al  
Publications of the Astronomical Society of Japan, 64, 136 (2012)

*No evidence for a central IMBH in M15.*

F. Kirsten and W. H. T. Vlemmings.  
Astron. Astrophys. 542, A44 (2012)

*Massive Star Formation toward G28.87+0.07 (IRAS 18411-0338) Investigated by Means of  
Maser Kinematics and Radio to Infrared Continuum Observations,*

Li, J. J., Moscadelli, L., Cesaroni, R., et al  
Astrophysical Journal, 749, 47 (2012)

*Resolving the Inner Jet Structure of 1924-292 with the Event Horizon Telescope.*

Lu, R.-S., Fish, V.L., Weintraub, J., Doeleman, S.S., Bower, G.C., Freund, R., Friberg, P.,  
Ho, P.T.P., Honma, M., Inoue, M., Krichbaum, T.P., Marrone, D.P., Moran, J.M., Oyama, T.,  
Plambeck, R., Primiani, R., Shen, Z.-Q., Tilanus, R.P.J., Wright, M., Young, K.H., Ziurys,  
L.M., Zensus, J.A.  
ApJ, 757, L14. (2012)

*The parsec-scale jet of PKS 1749+096,*

Lu, R.-S., Shen, Z.-Q., Krichbaum, T.P., Iguchi, S., Lee, S.-S., Zensus, J.A.  
A&A, 544, 89 (2012)

*On the calibration of full-polarization 86 GHz global VLBI observations.*

I. Martí-Vidal, T. P. Krichbaum, A. Marscher, W. Alef, A. Bertarini, U. Bach, F. K. Schinzel, H. Rottmann, J. M. Anderson, J. A. Zensus, M. Bremer, S. Sanchez, M. Lindqvist, and A. Mujunen.

Astron. Astrophys. 542, A107 (2012)

*VLBI and Archival VLA and WSRT Observations of the GRB 030329 Radio Afterglow,*

Mesler, R. A., Philström, Y. M., Taylor, G. B., Jonathan, G.:

Astrophysical Journal, 759, 4 (2012)

*The first resolved imaging of milliarcsecond-scale jets in Circinus X-1,*

Miller-Jones, J. C. A., Moin, A., Tingay, S. J., Reynolds, C., Phillips, C. J., Tzioumis, A. K., Fender, R. P., McCallum, J. N., Nicolson, G. D., Tudose, V. ,

Monthly Notices of the Royal Astronomical Society, 419, L49-L53 (2012)

*On the origin of LS 5039 and PSR J1825–1446.*

J. Moldón, M. Ribó, J. M. Paredes, W. Brisken, V. Dhawan, M. Kramer, A. G. Lyne, and B. W. Stappers.

A&A 543, A26 (2012)

*S5 0836+710: An FR II jet disrupted by the growth of a helical instability?*

M. Perucho, I. Martí-Vidal, A. P. Lobanov, and P. E. Hardee.

Astron. Astrophys. 545, A65 (2012)

*Anatomy of Helical Extragalactic Jets: The Case of S5 0836+710.*

M. Perucho, Y. Y. Kovalev, A. P. Lobanov, P. E. Hardee, and I. Agudo.

The Astrophysical Journal, 749:55, (2012)

*The EVN Galactic Plane Survey - EGaPS,*

Petrov, L.

Monthly Notices of the Royal Astronomical Society, 419, 1097 (2012)

*Relativistic Jets in the Radio Reference Frame Image Database. II. Blazar Jet Accelerations from the First 10 Years of Data (1994-2003).*

B. G. Piner, A. B. Pushkarev, Y. Y. Kovalev, C. J. Marvin, J. G. Arenson, P. Charlot, A. L. Fey, A. Collioud, and P. A. Voitsik.

The Astrophysical Journal, 758:84, (2012)

*Single-epoch VLBI imaging study of bright active galactic nuclei at 2 GHz and 8 GHz.*

A. B. Pushkarev and Y. Y. Kovalev,

A&A 544, A34 (2012)

*EVN observations of the farthest and brightest ULIRGs in the local Universe: the case of IRAS 23365+3604,*

Romero-Cañizales, Pérez-Torres, M. A., Alberdi, A.

Monthly Notices of the Royal Astronomical Society, 422, 510 (2012)

*e-MERLIN and VLBI observations of the luminous infrared galaxy IC 883: a nuclear starburst and an AGN candidate revealed.*

C. Romero-Cañizales, M. A. Pérez-Torres, A. Alberdi, M. K. Argo, R. J. Beswick, E. Kankare, F. Batejat, A. Efstathiou, S. Mattila, J. E. Conway, S. T. Garrington, T. W. B. Muxlow, S. D. Ryder, and P. Väisänen.  
Astron. Astrophys. 543, A72 (2012)

*Parsec-scale Radio Emission from the Low-luminosity Active Galactic Nucleus in the Dwarf Starburst Galaxy Henize 2-10,*

Reines A. H., Deller A. D.,  
The Astrophysical Journal Letters, 750, L24 (2012)

*A weak compact jet in a soft state of Cygnus X-1.*

A. Rushton, J. C. A. Miller-Jones, R. Campana, Y. Evangelista, Z. Paragi, T. J. Maccarone, G. G. Pooley, V. Tudose, R. P. Fender, R. E. Spencer and V. Dhawan.  
Mon. Not. R. Astron. Soc. 419, 3194 (2012)

*Parallaxes and proper motions of interstellar masers toward the Cygnus X star-forming complex. I. Membership of the Cygnus X region,*

Rygl, K. L. J., Brunthaler, A., Sanna, A., et al  
Astronomy and Astrophysics, 539, 79 (2012)

*EVN observations of 6.7 GHz methanol maser polarization in massive star-forming regions.*

G. Surcis, W. H. T. Vlemmings, H. J. van Langevelde, and B. Hutawarakorn Kramer.  
Astron. Astrophys. 541, A47 (2012)

*Disentangling Baryons and Dark Matter in the Spiral Gravitational Lens B1933+503.*

S. H. Suyu, S. W. Hensel, J. P. McKean, C. D. Fassnacht, T. Treu, A. Halkola, M. Norbury, N. Jackson, P. Schneider, D. Thompson, M. W. Auger, L. V. E. Koopmans, and K. Matthews.  
The Astrophysical Journal, 750:10 (2012)

*The radio structure of ultra-high-energy synchrotron-peak BL Lacs,*

Wu, Z., Jiang, D. R., Gu, M.  
Monthly Notices of the Royal Astronomical Society, 424, 2733 (2012)

*Very long baseline interferometry detection of the Galactic black hole binary candidate MAXI J1836-194,*

Yang, J., Xu, Y., Li, Z., et al  
Monthly Notices of the Royal Astronomical Society, 426, L66 (2012)

*The radio core and jet in the broad absorption-line quasar PG 1700+518,*

Yang, Wu, F., Paragi, Z., An, T.  
Monthly Notices of the Royal Astronomical Society, 419, L74 (2012)

*Compact radio emission from  $z \sim 0.2$  X-ray bright AGN,*

Zuther, J., Fischer, S., Eckart, A.  
Astronomy and Astrophysics, 543, 57 (2012)

## **Astronomy: LOFAR**

### *Magnetic Fields in Galaxies.*

Beck, Rainer

Space Science Reviews 166, 215 (2012)

### *Constraints on ultra-high-energy neutrino flux from radio observations of the Moon.*

Buitink, S., Falcke, H., James, C., et al.

Astrophysics and Space Science Transactions 8, 29

### *M 87 at metre wavelengths: the LOFAR picture.*

de Gasperin, F., Orru, E., Murgia, M., et al.

A&A 547, A56 (2012)

### *Wide-band simultaneous observations of pulsars: disentangling dispersion measure and profile variations,*

Hassall, T. E., Stappers, B. W., Hessels, J. W. T., et al.

A&A 543, A66 (2012)

### *Redundancy calibration of phased-array stations.*

Noorishad, P., Wijnholds, S. J., van Ardenne, A., et al.

A&A 545, A108 (2012)

### *A morphological algorithm for improving radio-frequency interference detection.*

Offringa, A. R., van de Gronde, J. J., & Roerdink, J. B. T. M.

A&A 539, A95 (2012)

### *A broad-band flux scale for low-frequency radio telescopes.*

Scaife, Anna M. M. & Heald, George H.

MNRAS 423, L30 (2012)

### *Optimized trigger for ultra-high-energy cosmic-ray and neutrino observations with the low frequency radio array.*

Singh, K., Mevius, M., Scholten, O., et al.

Nuclear Instruments and Methods in Physics, 664, 171 (2012)

### *LOFAR calibration and wide-field imaging.*

Tasse, Cyril, van Diepen, Ger, van der Tol, Sebastiaan, et al.

Comptes Rendus Physique 13, 28 (2012)

### *First LOFAR observations at very low frequencies of cluster-scale non-thermal emission: the case of Abell 2256.*

van Weeren, R. J., Rottgering, H. J. A., Rafferty, D. A., et al.

A&A 543, A43 (2012)

### *Reduced ambiguity calibration for LOFAR.*

Yatawatta, Sarod

Experimental Astronomy 34, 89 (2012)

## Geoscience

*Complex demodulation in VLBI estimation of high frequency Earth rotation Components.*

S. Boehm, A. Brzezinski, and H. Schuh.

Journal of Geodynamics. 62, p.56–68 doi 10.1016/j.jog.2011.10.002. (2012)

*Six years of mesospheric CO estimated from ground-based frequency-switched microwave radiometry at 57 °N compared with satellite instruments.*

P. Forkman, O.M. Christensen, P. Eriksson, J. Urban, and B. Funke.

Atmospheric Measurement Techniques. (5) p. 2827-2841 (2012)

*Tidal deformations of the earth from VLBI observations.*

V. S. Gubanov, and S. L. Kurdubov,

Astronomy Letters – A Journal of Astronomy and Space Astrophysics (2012) doi:

10.1134/S1063773712050027 (2012)

*Multi-technique comparisons of 10 years of wet delay estimates on the west coast of Sweden.*

T. Ning, R. Haas, G. Elgered, and U. Willén.

Journal of Geodesy 86 p. 565-575 (2012)

*Ray-traced tropospheric delays in VLBI analysis.*

V. Nafisi, M. Madzak, J. Boehm, A. Ardalan, and H. Schuh.

Radio Science 47 doi: 10.1029/2011RS004918 (2012)

*Modelling of the GIA-induced surface gravity change over Fennoscandia.*

P.-A. Olsson, J. Ågren, H.-G. Scherneck.

Journal of Geodynamics. 61 p. 12-22 (2012)

*Observations of middle atmospheric H<sub>2</sub>O and O<sub>3</sub> during the 2010 major sudden stratospheric warming by a network of microwave radiometers.*

D. Scheiben, C. Straub, K. Hocke, P. Forkman, and N. Kämpfer.

Atmospheric Chemistry and Physics, 12, 7753–7765 (2012)

*VLBI: A fascinating technique for geodesy and astrometry.*

H. Schuh, and D. Behrend.

Journal of Geodynamics, 62, p.56–68, doi: 10.1016/j.jog.2012.07.007 (2012)

*The 2008 DGF realization of the ITRS: DTRF2008.*

M. Seitz, D. Angermann, M. Blossfeld, H. Drewes, and M. Gerstl.

Journal of Geodesy 86, p. 1097–1123 (2012)

*Effects and disturbances on GPS-derived zenith tropospheric delay during the CONT08 campaign.*

H. Wei, S. Jin, and X. He, Xiufeng.

Advances in Space Research 50(5), p- 632–641 doi: 10.1016/j.asr.2012.05.017 (2012)

*Direct estimation of the Solar acceleration using geodetic/astrometric VLBI observations,*

M. H. Xu, G. L. Wang, and M. Zhao.

Science China – Physics Mechanics & Astronomy, 55(2), p. 329–332 doi: 10.1007/s11433-011-4602-8 (2012)