


PERSONAL INFORMATION

Claudio Pernechele

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Sex M | Date of birth 01 January 1965

CV APPLIED FOR

Concorso INAF 2020 – Dirigente MA3

WORK EXPERIENCE

ACTUAL WORKING POSITION

Senior researcher within National Institute for Astrophysics (INAF) - Italy

2012-Present

Hyperhemispheric and Bifocal Panoramic Lenses

In the recent years most of my work was focalised on design and development of a novel concept of hyper-hemispheric lenses [R28, C2, C3, P66, P67, P71]. A lens patent has been granted in Italy [B3]. This lens find space/planetary applications as multifunctional sensor for mini- and micro-satellites [R30, R31, P71], funded by H2020 SME Instrument scheme [B5]), explore lunar caves (funded by ESA Expro+ measure, “Daedalus” project), stereoscopic autoguide for planetary rover [P72, P75]. A downgrade of the lens has been selected as optical head for the EnVisS instrument to be mounted onboard the ESA F-class mission Comet Interceptor [P73, P74] .

In the meanwhile I work also in the design a space telescope for surveillance of geosynchronous space debris, in collaboration with Telespazio SpA [R32].

2003-2015

Radiotelescope Metrology

I was coordinator of the metrology group of the SRT (Sardinia Radio Telescope), a 64 meter active-optics radio antenna sited in the Sardinia Island (Italy). The main task of the metrology group is to build up an optical system for enabling the active surface *control loop* closure of the main dish [P43-P45, P47, P48, P51, P57, P59, P60, P64].

Optical Coherent Tomography (OCT)

With the aim of measuring the roughness of radio panels, in the framework of the SRT researches, I built a partially coherent light interferometer, able to measure 3D surface features with accuracy of 1 μm and a large depth of field: up to some mm [P58]. That interferometer has found application also in other research fields, such as metrology for mechanical clockwork [P54] and artwork diagnostic [P52, P55] and metrology [P70, P69].

Quantum Communications

In the meanwhile I collaborate, as optical designer, within an international group working in quantum communications and quantum astronomy. Published works are in the field of ground-space quantum communication [R19-R21, P46] and

quantum astronomy [R23-R26, P49, P53, P56]. I design and test a novel un-obstructed optical terminal devoted to single-photon long-distance free-space quantum communication [P63]. The telescope is now in use inside the quantum communication group of the University of Wien.

2000-2015 Astronomic Polarimetry

From the 2000 I was in charge at the Astronomical Observatory of Padova, mainly working on design and realization of a novel astronomical polarimeter [R29, R17, R18, P30, P32, P33, P36, P37]. I design a new instrument for the Cote d'Azur Observatory especially dedicated to asteroids astronomy [P65, P68]. Other fields of research were wavefront sensors [R14, P20], infrared optical design [P21, P22, P35], volume phase holographic gratings [P29, P31, P32] and fiber Bragg grating for astronomical applications [P35].

Co-Chairman of the "Polarimetry in Astronomy" conference, held in San Diego (CA) in the 2002 by the International Society for the Optical Engineering (SPIE).

1996-1999 Active Optics Optical Telescope

After the Ph. D. studies I received a grant for working inside the Telescopio Nazionale Galileo (TNG), a 3.5 meter active-optics telescope then in the building phase at La Palma Island (Canary Islands, Spain). The main work regarded the alignment and commissioning of the telescope [R11, R13, R14, P12-P16, P23, P24]. In this period I was the responsible of the TNG Active Optics Group.

1992-1995 Ph. D. work: Extreme Ultraviolet Space Optics

My main activity during the Ph. D. studies was the alignment and laboratory test of the "Ultraviolet Coronagraph Spectrometer" (UVCS) for the SOHO (Solar and Heliospheric Observatory) satellite [R2, P2].

The test on the UVCS-LEU (Laboratory Evaluation Model) was performed inside the Department of Electronic of the Padova University [R3, R4, P4, P6, P7], while the test on the UVCS-FM (Flight Model) was done in Alenia Spazio (Torino, Italy) and at the Harvard-Smithsonian Centre for Astrophysics (CfA - Cambridge-MA) [P5]. After the launch I follow the calibration phase of the instrument [R7, R9, P8, P9, P10] until the first scientific results [R5, R6, R8, R10, R12, P11].

For this work on the test and calibration of the SOHO-UVCS I receive two awards: one from NASA [A1] and one from ESA [A2].

EDUCATION AND TRAINING

1995 Ph. D. in "Space Science and Technologies", University of Padova

Thesis title: "Extreme Ultraviolet Space Optics Instrumentation"

1990 Laurea degree in Astronomy, University of Padova

ORGANISATIONAL COMPETENCIES

2006-2011 Member of the INAF-UIT (Technology Transfer Office, INAF)

2003-2010 Coordinator of the Metrology group of the Sardina Radio Telescope (SRT)

2000-2002 Manager of the Asiago telescopes (Astronomical Observatory of Padova)

1996-1999 Coordinator of the TNG Active Optics Group (La Palma, Canary Island, Spain).

AWARDS

1995 Special Act group Award for contribution to the UVCS (NASA-GSFC)
1995 Award for contribution to the SOHO (ESA).

Mother tongue **Italian**

Other language

	UNDERSTANDING		SPEAKING		WRITING
	Ascolto	Lettura	Interazione	Produzione orale	
English	B2	B2	B2	B2	B2

Driving license **B**

ADDITIONAL INFORMATION

Teaching Experiences

Lessons for University courses

“Optica per Infrarosso” - Master II level “on “Applied Optics” - Univ. of Padova – 2002/2005
“Tecnologie per l’astrofisica” – Physics laurea course - Univ. of Cagliari – 2004/2007
“Progettazione ottica” – Master II level “on “Applied Optics” - Univ. of Padova – 2005/2008
“Esperimentazioni di Fisica II” – Astronomy laurea course - Univ. of Padova – 2006/2008
“Panoramic Optics” – Ph.D. course on “space science and technologies”, Univ. of Padova, 2017
Optical interferometry - Ph.D. course on “space science and technologies”, Univ. of Padova, 2018
“Astronomical polarimetry” – NEON Summer school, Univ. of Padova, 2002


Lessons for enterprises courses:

“Optical design” – ART group SpA, Confindustria Umbria - 2009
“Optical design” – Officina Stellare SpA, EU Action Research - 2017
“Optical design” – Adaptica srl, EU Action Research - 2019

Publications

See annex below

PADOVA, 29.09..2020



List of Publications of Claudio Pernechele

Total citations = **2526** (from research gate only)

h-index = **20** (from research gate).

Key legend: Cxx = Books / Book Chapters (invited).

Rxx = Peer refereed papers.

Pxx = Proceedings.

Bxx = Patents and copyright ownership.

Axx = Awards.

Books & Book Chapters

- C3:** C. Pernechele, "*Introduction to Panoramic Lenses*" (2018), SPIE Digital Library, Bellingham (Washington), <https://doi.org/10.1117/3.2322575>
- C2:** C. Pernechele, "*Bifocal Panoramic Lens*" (2015), chapter in the book *New Developments in Surveillance Systems and National Security*, edited by K. F. Hodges, Nova Science Publisher Ed., NY, USA. <https://novapublishers.com/shop/new-developments-in-surveillance-systems-and-national-security/>.
- C1:** C. Pernechele, "*Imaging: Adaptive Optics*" (2005), chapter in the *Encyclopedia of Modern Optics*, edited by R. D. Guenther, D. G. Steel and L. Bayvel, Elsevier, Oxford. <http://www.sciencedirect.com/science/article/pii/B0123693950007028>).

Peer refereed papers

- R33:** RODEGHIERO, G., SAWCZUCK1, M., POTT, J.-U., GLÜCK, M., BIANCALANI, E., HÄBERLE, M., RIECHERT, H., **PERNECHELE, C.**, NARANJO, V., MORENO-VENTAS, J., BIZENBERGER, P., PERERA, S., LESSIO, L., Development of the Warm Astrometric Mask for MICADO Astrometry Calibration, **PASP**, 131:054503, doi: 10.1088/1538-3873/ab0c40, 2019.
- R32:** LUPO, R., ALBANESE, C., BETTINELLI, D., BRANCATI, M., MINEI, G., **PERNECHELE, C.**, Lighthouse: A spacebased mission concept for the surveillance of geosynchronous space debris from low earth orbit *Advances in Space Research*, doi: 10.1016/j.asr.2018.03.005, 2018.
- R31:** **PERNECHELE, C.**, DIONISIO, C., MUNARI, M., OPROMOLLA, R., RUFINO, G., FASANO, G., GRASSI, M., PASTORE, S., Hyper hemispheric lens applications in small and micro satellites, *Advances in Space Research*, doi: 10.1016/j.asr.2018.02.025, 2018.
- R30:** OPROMOLLA, R., FASANO, G., RUFINO, G., GRASSI, M., **PERNECHELE, C.**, DIONISIO, C., A new star tracker concept for satellite attitude determination based on a multi-purpose panoramic camera, *Acta Astronautica*, doi: 10.1016/j.actaastro.2017.08.020, 2017.
- R29:** DEVOGÈLE, M., CELLINO, A., BAGNULO, S., RIVET, J.P., BENDJOYA, PH., ABE, L., **PERNECHELE, C.**, MASSONE, G., VERNET, D., TANGA, P., DIMUR, C., The Calern Asteroid Polarimetric Survey using the Torino polarimeter: assessment of instrument performances and first scientific results, *MNRAS*, Vol. 465(4), pp. 4335-4347, 2017.

- R28: PERNECHELE, C.,**
Hyper hemispheric lens,
Optics Express, Vol. 24(5), pp. 5014-5019, 2016.
- R27: RODEGHIERO, G., GIRO, E., CANESTRARI, R., PERNECHELE, C., SIRONI, G., PARESCHI, G., LESSIO, L., CONCONI, P.,**
Qualification and testing of a large hot slumped secondary mirror for Schwarzschild-Couder imaging air Cherenkov telescopes,
PASP, Vol. 128(963), pp. 055001, 2016.
- R26: NALETTO, G., BARBIERI, C., OCCHIPINTI, T., CAPRARO, I., DI PAOLA, A., FACCHINETTI, C., VERRI, E., ZOCCARATO, P., ANZOLIN, G., BELLUSO, M., BILLOTTA, S., BOLLI, P., BONANNO, G., DA DEPPO, V., FORNASIER, S., GERMANA', C., GIRO, E., MARCHI, S., MESSINA, F., PERNECHELE, C., TAMBURINI, F., ZACCARIOTTO, M., ZAMPIERI, L.,**
Iqueye, a single photon-counting photometer applied to the ESO new technology telescope,
A&A, Vol. 508(1), pp. 531-539, 2009.
- R25: BILLOTTA, S., BELLUSO, BONANNO, G., DI MAURO, S., TIMPANARO, M., CONDORELLI, G., FALlica, P., MAZZILLO, M., SANFILIPPO D., VALVO, G., COSENTINO, L., FINOCCHIARO, P., PAPPALARDO, A., NALETTO, G., OCCHIPINTI, T., PERNECHELE, C., BARBIERI, C.,**
Characterization of detectors for the Italian Astronomical Quantum Photometer Project,
Journal of Modern Optics, Vol. 56(2), pp. 273-283, 2009.
- R24: BARBIERI, C., NALETTO, G., OCCHIPINTI, T., FACCHINETTI, C., VERRI, E., GIRO, E., DI PAOLA, A., BILLOTTA, S., ZOCCARATO, P., BOLLI, P., TAMBURINI, F., BONANNO, G., D'ONOFRIO, M., MARCHI, S., ANZOLIN, G., CAPRARO, I., MESSINA, F., BELLUSO, M., PERNECHELE, C., ZACCARIOTTO, M., ZAMPIERI, L., DA DEPPO, V., FORNASIER, S., PEDICHINI, F.,**
AquEYE, a single photon counting photometer for astronomy,
Journal of Modern Optics, Vol. 56(2), pp. 261-272, 2009.
- R23: BARBIERI, C., NALETTO, G., VERRI, E., FACCHINETTI, C., OCCHIPINTI, T., DI PAOLA, A., GIRO, E., ZOCCARATO, P., ANZOLIN, G., D'ONOFRIO, M., TAMBURINI, F., BONANNO, G., BILLOTTA, S., PERNECHELE, C., BOLLI, P., DA DEPPO, V., FORNASIER, S.,**
First results of AQuEye, a precursor 'Quantum' instrument for the E-ELT,
Science with the VLT in the ELT Era: Astrophysics and Space Science Proceedings, Springer Neth., p. 249, 2009.
- R22: BOULANGER, F., MAILLARD, J., APPLETON, P., FALGARONE, E., LAGAGE, G., SCHULZ, B., WAKKER, B., BRESSAN, A., PERNECHELE, C., ... AND 69 CO-AUTHORS,**
The molecular hydrogen explorer H2EX,
Experimental Astronomy, Vol. 23 (1), pp. 277-302, 2009.
- R21: VILLORESI, P., JENNEWEIN, T., TAMBURINI, F., ASPELMEYER, M., BONATO, C., URSIN, R., PERNECHELE, C., LUCERI, V., BIANCO, G., ZEILINGER, A., BARBIERI, C.,**
Experimental verification of the feasibility of a quantum channel between space and Earth,
New Journal of Physics, Vol. 10(3), pp. 33-38, 2008.
- R20: BONATO, C., PERNECHELE, C., VILLORESI, P.,**
Influence of all-reflective optical systems in the transmission of polarized-encoded qubits, ,
Journal of Optics A, Vol. 9(10), pp. 899-906, 2007.
- R19: BONATO, C., ASPELMEYER, M., JENNEWEIN, T., PERNECHELE, C., VILLORESI, P., ZEILINGER, A.,**
Influence of satellite motion on polarization qubits in a Space-Earth quantum communication link,
Optics Express, Vol. 14(21), pp. 50-59, 2006.
- R18: FORNASIER, S., BELSKAYA, I., SHKURATOV, Y., PERNECHELE, C., BARBIERI, C., GIRO, E., NAVASARDYAN, H.,**
Polarimetric survey of asteroids with the Asiago telescope,

A&A, Vol. 455, pp. 371-377, 2006.

- R17:** DESIDERA, S., GIRO, E., MUNARI, U., EFIMOV, Y., HENDEN, A., BENETTI, S., TOMOV, T., BIANCHINI, A., **PERNECHELE, C.**,
Polarimetric evolution of V838 Monocerotis,
A&A, Vol. 414, pp. 591-600, 2004.
- R16:** **PERNECHELE, C.**, BERTA, S., MARCONI, A., BONOLI, C., BRESSAN, A., FRANCESCHINI, A., FRITZ, J., GIRO, E.,
Spectro polarimetric search for hidden AGNs in four southern Ultraluminous Infrared Galaxies,
MNRAS, Vol. 338(1), pp. L13-L17, 2003.
- R15:** BERTA, S., FRITZ, J., **PERNECHELE, C.**, BRESSAN, A., FRANCESCHINI, A.,
Spatially resolved spectrophotometric analysis and modelling of the superantennae,
A&A, Vol. 403, pp. 119-134, 2003.
- R14:** **PERNECHELE, C.**, BORTOLETTO, F., FANTINEL, D., GIRO, E.,
Afocal Shack-Hartmann Screen for an Instrument with an Accessible Pupil,
PASP, Vol. 112, pp. 996-1000, 2000.
- R13:** BORTOLETTO, F., BONOLI, C., FANTINEL, D., GARDIOL, D., **PERNECHELE, C.**,
An active telescope secondary mirror control system,
Review of Scientific Instruments, Vol. 70, No. 6, p. 2856-2860, 1999.
- R12:** CRANMER, S. R., KOHL, J. L., NOCI, G., ANTONUCCI, E., TONDELLO, G., HUBER, M. C. E., STRACHAN, L., PANASYUK, A. V., GARDNER, L. D., ROMOLI, M., FINESCHI, S., DOBRZYCKA, D., RAYMOND, J. C., NICOLOSI, P., SIEGMUND, O. H. W., SPADARO, D., BENNA, C., CIARAVELLA, A., GIORDANO, S., HABBAL, S. R., KAROVSKA, M., LI, X., MARTIN, R., MICHELS, J. G., MODIGLIANI, A., NALETTO, G., O'NEAL, R. H., **PERNECHELE, C.**, POLETTA, G., SMITH, P. L., SULEIMAN, R. M.,
An empirical model of a polar coronal hole at solar minimum,
Ap. J., Vol. 511, p. 481-501, 1999.
- R11:** **PERNECHELE, C.**, BORTOLETTO, F., REIF, K.,
Hexapod control for an active secondary mirror: general concept and test results,
Applied Optics, Vol. 37, No. 28, p. 6816-6821, 1998.
- R10:** KOHL, J. L., NOCI, G., ANTONUCCI, E., TONDELLO, G., HUBER, M. C. E., CRANMER, S. R., STRACHAN, L., PANASYUK, A. V., GARDNER, L. D., ROMOLI, M., FINESCHI, S., DOBRZYCKA, D., RAYMOND, J. C., NICOLOSI, P., SIEGMUND, O. H. W., SPADARO, D., BENNA, C., CIARAVELLA, A., GIORDANO, S., HABBAL, S. R., KAROVSKA, M., LI, X., MARTIN, R., MICHELS, J. G., MODIGLIANI, A., NALETTO, G., O'NEAL, R. H., **PERNECHELE, C.**, POLETTA, G., SMITH, P. L., SULEIMAN, R. M.,
UVCS/SOHO empirical determinations of anisotropic velocity distributions in the solar corona,
Ap. J., Vol. 501, p. L127-L131, 1998. doi: 10.1086/311434.
- R9:** KOHL, J. L., NOCI, G., ANTONUCCI, E., TONDELLO, G., HUBER, M. C. E., GARDNER, L. D., NICOLOSI, P., STRACHAN, L., FINESCHI, S., RAYMOND, J. C., ROMOLI, M., SPADARO, D., PANASYUK, A., SIEGMUND, O. H. W., BENNA, C., CIARAVELLA, A., CRANMER, S. R., GIORDANO, S., KAROVSKA, M., MARTIN, R., MICHELS, J., MODIGLIANI, A., NALETTO, G., **PERNECHELE, C.**, POLETTA, G., SMITH, P. L.,
First results from the SOHO Ultraviolet Coronagraph Spectrometer,
Solar Physics, Vol. 175, p. 613-644, 1997.
- R8:** RAYMOND, J. C., KOHL, J. L., NOCI, G., ANTONUCCI, E., TONDELLO, G., HUBER, M. C. E., GARDNER, L. D., NICOLOSI, P., FINESCHI, S., ROMOLI, M., SPADARO, D., SIEGMUND, O. H. W., BENNA, C., CIARAVELLA, A., CRANMER, S. R., GIORDANO, S., KAROVSKA, M., MARTIN, R., MICHELS, J., MODIGLIANI, A., NALETTO, G., PANASYUK, A., **PERNECHELE, C.**, POLETTA, G., SMITH, P. L., SULEIMAN, R. M., STRACHAN, L.,

Composition of coronal streamers from the SOHO Ultraviolet Coronagraph Spectrometer,
Solar Physics, Vol. 175, p. 645-665, 1997.

- R7:** NOCI, G., KOHL, J. L., ANTONUCCI, E., TONDELLO, G., HUBER, M. C. E., FINESCHI, S., GARDNER, L. D., NALETTO, G., NICOLOSI, P., RAYMOND, J. C., ROMOLI, M., SPADARO, D., SIEGMUND, O. H. W., BENNA, C., CIARAVELLA, A., GIORDANO, S., MICHELS, J., MODIGLIANI, A., PANASYUK, A., **PERNECHELE, C.**, POLETTO, G., SMITH, P. L., STRACHAN, L.,
First results from UVCS/SOHO,
Advances in Space Research, Vol. 20, N. 12, pp. 2219-2230, 1997.
- R6:** KOHL, J. L., NOCI, G., ANTONUCCI, E., TONDELLO, G., HUBER, M. C. E., GARDNER, L. D., NICOLOSI, P., FINESCHI, S., RAYMOND, J. C., ROMOLI, M., SPADARO, D., VAN BALLEGOOIJEN, A. A., SIEGMUND, O. H. W., BENNA, C., CIARAVELLA, A., CRANMER, S. R., GIORDANO, S., KAROWSKA, M., MARTIN, R., MICHELS, J., MODIGLIANI, A., NALETTO, G., PANASYUK, A., **PERNECHELE, C.**, POLETTO, G., SMITH, P. L., STRACHAN, L.,
Measurements of H I and O VI velocity distributions in the extended solar corona with UVCS/SOHO and UVCS/Spartan 201,
Advances in Space Research, Vol. 20, N. 1, pp. 3-14, 1997.
- R5:** ANTONUCCI, E., KOHL, J. L., NOCI, G., TONDELLO, G., HUBER, M. C. E., GARDNER, L. D., NICOLOSI, P., GIORDANO, S., SPADARO, D., CIARAVELLA, A., RAYMOND, J. C., NALETTO, G., FINESCHI, S., ROMOLI, M., SIEGMUND, O. H. W., BENNA, C., MICHELS, J., MODIGLIANI, A., PANASYUK, A., **PERNECHELE, C.**, SMITH, P. L., STRACHAN, L., VENTURA, R.,
Velocity fields in the solar corona during mass ejections as observed with UVCS-SOHO,
Ap. J., Vol. 490, p. L183-L186, 1997.
- R4:** **PERNECHELE, C.**, NALETTO, G., NICOLOSI, P., TONDELLO, G., FINESCHI, S., ROMOLI, M., NOCI, G., SPADARO, D., KOHL, J. L.,
Optical performances of the Ultraviolet Coronagraph Spectrometer of the Solar Heliospheric Observatory,
Applied Optics, Vol. 36, No. 4, p. 813-826, 1997. doi: 10.1364/AO.36.000813.
- R3:** **PERNECHELE, C.**, POLETTO, L., NICOLOSI, P., NALETTO, G.,
Spectral resolution improvement technique for a spectrograph mounting a discrete array detector,
Optical Engineering,
Vol. 35, p. 1503-1510, 1996.
- R2:** KOHL, J. L., ESSER, R., GARDNER, L. D., HABBAL, S., DAIGNEAU, P. S., DENNIS, E. F., NYSTROM, G. U., PANASYUK, A., RAYMOND, J. C., SMITH, P. L., STRACHAN, L., VAN BALLEGOOIJEN, A. A., NOCI, G., FINESCHI, S., ROMOLI, M., CIARAVELLA, A., MODIGLIANI, A., HUBER, M. C. E., ANTONUCCI, E., BENNA, C., GIORDANO, S., TONDELLO, G., NICOLOSI, P., NALETTO, G., **PERNECHELE, C.**, SPADARO, D., POLETTO, G., LIVI, S., VON DER LUHE, O., GEISS, J., TIMOTHY, J. G., GLOECKLER, G., ALLEGRA, A., BASILE, G., BRUSA, R., WOOD, B., SIEGMUND, O. H. W., FOWLER, W., FISHER, R., JHABVALA, M.,
The Ultraviolet Coronagraph Spectrometer for the Solar and Heliospheric Observatory,
Solar Physics, Vol. 162, p. 313-356, 1995. doi: 10.1007/BF00733433.
- R1:** CREMONESE, G., THOMAS, N., BARBIERI, C., **PERNECHELE, C.**,
High resolution spectra of Io's neutral sodium cloud,
A&A, Vol. 256, No. 1, p. 286-298, 1992.

Proceedings

- P75:** **PERNECHELE, C.**, CREMONESE, G., FANTINEL, D., LUCCHETTI, A., LESSIO, L., MASSIRONI, M., PAJOLA, M., PAOLETTI, L., POZZOBON, R., RE, C., SAGGIN, B., SCACCABAROZZI, D., SIMIONI, E., ABBATTISTA, C., AMORUSO, L., BANFI, E., CONSOLARO, L., DIONISIO, C., KUIJPERS, M., MURA, D., PIANTONE, S.,
"BIPS: Bifocal Panoramic Camera for Lunar Exploration",
European Planetary Science Congress 2020, Abstract #557, 2020.

- P74: PERNECHELE, C.**, DA DEPPO, V., BRYDON, G., JONES, G. H., LARA, L., MICHAELIS, H.,
“Comet Interceptor’s EnVisS camera sky mapping function”,
SPIE proceedings, vol. 11203, doi: 10.1117/12.2539239.
- P73: JONES, G. H.**, DA DEPPO, V., MICHAELIS, H., LARA, L., **PERNECHELE, C.**, BRYDON, G., VINCENT, J. B.,
“The Comet Interceptor EnVisS Instrument: Wide-Field Imaging of the Solar Wind’s Interaction with a Comet”,
American Geophysical Union Proceedings, 2019, abstract #SM23D-3228
- P72: SIMIONI, E.**, PERNECHELE, C., RE, C., LESSIO, L., CREMONESE, G.,
“Geometrical calibration for the PANROVER: a stereo omnidirectional system for planetary rover”,
ISPRS – Int.nal Archives of the Photogrammetry, Remote sensing and spatial information science, XLIII-B3, 1151-1158, doi: 10.5194/isprs-archives-XLIII-B3-2020-1151, 2020.
- P71: OPROMOLLA, R.**, FASANO, G., RUFINO, G., GRASSI, M., PERNECHELE, C., DIONISIO, C.,
Performance characterisation of a non-conventional star tracker based on a hyper-hemispherical panoramic camera,
70th International Astronautical Federation Congress, Washington D.C, IAC-18, #45987, 2019.
- P70: PERNECHELE, C.**, MAGRIN, D., RODEGHIERO, G.,
Optical plate thickness measurement with single-shot low coherence interferometry,
Optical Society of America conference on Optical Design and Fabrication, Denver (CO), doi: 10.1364/OFT.2017.OM2B.4, 2017.
- P69: PERNECHELE, C.**, FANTINEL, D., MAGRIN, D., LESSIO, L., RODEGHIERO, G.,
Low coherence interferometry-based meter distance range finder,
IEEE Int. Works. on Metrology for Aerospace, doi: 10.1109/MetroAeroSpace.2017.7999551, 2017.
- P68: DEVOGÈLE, M.**, CELLINO, A., MASSONE, G., BAGNULO, S., **PERNECHELE, C.**, BENDJOYA, PH., DIMUR, C., RIVET, J.P., VERNET, D., SUAREZ, O.,
Asteroid polarimetry: validation run on the CAPS polarimeter,
European Planetary Science Congress, Nantes (FR), id. EPS2015-469, 2015.
- P67: PERNECHELE, C.**, VILLA, F.,
Hyper-hemispheric lens distortion model for 3D-imaging SPAD-array-based applications,
SPIE Proceedings, Vol. 9626(1), 7 pp., 2015.
- P66: PERNECHELE, C.**,
Hyper-hemispheric and bifocal panoramic lenses,
SPIE Proceedings, Vol. 8896(2), 9 pp., 2013.
- P65: PERNECHELE, C.**, ABE, L., BENDJOYA, P., CELLINO, A., MASSONE, G., RIVET, J.,
A single shot optical linear polarimeter for asteroid studies,
SPIE Proceedings, Vol. 8446(2H), 6 pp., 2012. doi:10.1117/12.925933.
- P64: PISANU, T.**, BUFFA, F., DEIANA, G., MARONGIU, P., MORSIANI, M., **PERNECHELE, C.**, POPPI, S., SERRA, G., VARGIU, G.,
Architecture of the metrology for the SRT,
SPIE Proceedings, Vol. 8444(2E), 9 pp., 2012.
- P63: PERNECHELE, C.**, TAMBURINI, F., JENNEWEIN, T., ZEILINGER, A.,
An all-spheric unobstructed optical terminal for free space quantum communication,
SPIE Proceedings, Vol. 8167(1E), 6 pp., 2011.

- P62:** SPEROTTO, R., POPPI, S., **PERNECHELE, C.**,
A large aperture portable telescope,
SPIE Proceedings, Vol. 8167(1T), 10 pp., 2011.
- P61:** SPEROTTO, R., POPPI, S., **PERNECHELE, C.**,
A new optical design for dismountable and portable catadioptric telescope,
SPIE Proceedings, Vol. 7733(1G), 10 pp., 2010.
- P60:** POPPI, S., **PERNECHELE, C.**, PISANU, T., MORSIANI, M.,
High precision pointing with the Sardinia Radio telescope,
SPIE Proceedings, Vol. 7733, 8 pp., 2010.
- P59:** **PERNECHELE, C.**, BARBIERI, C., BOLLI, P., BUFFA, F., PISANU, T., POPPI, S., SERRA, G.,
MORSIANI, M., RODA, J., ZACCHIROLI, G., NOCITA, C., PATERNÒ, M.,
A control loop closure system for the Sardinia Radio Telescope active surface,
SPIE Proceedings, Vol. 7739, pp. 1C-11C, 2010.
- P58:** CHINELLATO, S., **PERNECHELE, C.**, CARMIGNATO, S., MANZAN, F.,
Surface measurements of radio antenna panels with white-light interferometry,
SPIE Proceedings, Vol. 7739, pp. 2T-10T, 2010.
- P57:** PISANU, T., BUFFA, F., MORSIANI, M., **PERNECHELE, C.**, POPPI, S.,
Thermal behaviour of the Medicina 32-meter radio telescope,
SPIE Proceedings, Vol. 7739, pp. 35-44, 2010.
- P56:** BARBIERI, C., NALETTO, G., CAPRARO, I., OCCHIPINTI, T., VERRI, E., ZOCCARATO, P., GRADARI, S., BARBIERI, M.,
GERMANA', C., ZAMPIERI, L., GIRO, E., DA DEPPA, V., DI PAOLA, A., FACCHINETTI, C., BOLLI, P., **PERNECHELE, C.**,
BILLOTTA, S., BONANNO, G., BELLUSO, M., MESSINA, F., ZACCARIOTTO, M.,
IquEye: a single photon counting very high-speed photometer for the ESO 3.5m NTT,
SPIE Proceedings, Vol. 7681, pp 10-22, 2010.
- P55:** **PERNECHELE, C.**, CHINELLATO, S., MANZAN, F., GALEOTTI, M.,
Multi-thread real-time data processing for an imag-based partially coherent light interferometer,
Proceedings of the 17th European Signal Processing Conference (EUSIPCO), Glasgow, Scotland, August 2009, p. 66-74.
- P54:** **PERNECHELE, C.**, CHINELLATO, S., CARMIGNATO, S., VOLTAN, A., MANZAN, F.,
Depth calibrations of a 2D-CMOS based partially coherent light interferometer,
Proceedings of the European Society for Precision Engineering and Nanotechnology (EUSPEN), S. Sebastian, Spain, June 2009, pp. 103-110.
- P53:** C. BARBIERI, G. NALETTO, I. CAPRARO, T. OCCHIPINTI, E. VERRI, P. ZOCCARATO, C. FACCHINETTI, C. GERMANA', M. PARRAZZANI, M. ZACCARIOTTO, G. ANZOLIN, F. TAMBURINI, A. DI PAOLA, E. GIRO, G. BONANNO, S. BILLOTTA, **C. PERNECHELE**, P. BOLLI, L. ZAMPIERI, A. POSSENTI, A. CADEZ,
Very fast photon counting photometer for astronomical applications: IquEYE for the ESO 3.5m New Technology Telescope,
SPIE Proceedings, Vol. 7355, pp1-14, 2009.
- P52:** **PERNECHELE, C.**, CHINELLATO, S., MANZAN, F., POSSENTI, A., LAPUCCI, R., GRUNDY, S., BORTOLETTO, F., MAGRIN, D.,
3D surface topography of artworks at micrometric depth resolution,
Atti della Fondazione Giorgio Ronchi on "Painted Optics Symposium", Firenze, 91-104, 2009.
- P51:** TOFANI, G., **PERNECHELE, C.**, AND 45 CO-AUTHORS
Status of the Sardinia Radio Telescope project,

SPIE Proceedings, Vol. 7012, pp. 1-12, 2008.

- P50:** MAGRIN, D., GIRO, E., BORTOLETTO, F., CRIMI, G., **PERNECHELE, C.**, TOMELLERI, R.,
Design and construction of a focal plane slicing mirror,
SPIE Proceedings, Vol. 7018, pp. 37-45, 2008.
- P49:** BARBIERI, C., OCCHIPINTI, T., ZOCCARATO, P., FACCHINETTI, C., NALETTO, G., VERROI, E., ZACCARIOTTO, M., GIRO, E., BOLLI, P., BONANNO, G., DI PAOLA, A., **PERNECHELE, C.**, ANZOLIN, G., TAMBURINI, F.,
First results of AQUEYE, a Precursor Ultra Fast Photometer for the E-ELT,
JENAM-2007, "Our non-stable Universe", 2007, Yerevan (Armenia), p. 87.
- P48:** PISANU, T., BUFFA, F., MORSIANI, M., NATALINI, M., **PERNECHELE, C.**, VARGIU, G.,
How to improve the high frequency capabilities of the SRT,
Mem. SAIT, Vol. 10, p. 136, 2006.
- P47:** ZACCHIROLI, G., FIOCCHI, F., MACCAFERRI, G., MORSIANI, M., ORFEI, A., **PERNECHELE, C.**, PISANU, T., RODA, J., VARGIU, G.,
The panels for primary and secondary mirror reflectors and the active surface system for the new Sardinia Radio Telescope,
Mem. SAIT, Vol. 10, p. 126, 2006.
- P46:** VILLORESI, P., TAMBURINI, F., ASPELMEYER, M., JENNEWEIN, T., URSIN, R., **PERNECHELE, C.**, BIANCO, G., ZEILINGER, A., BARBIERI, C.,
Space-to-ground quantum communication using an optical ground station: a feasibility study,
SPIE Proceedings, Vol. 5551, pp. 113-120, 2004.
- P45:** GRUEFF, G., ALVITO, G., AMBROSINI, R., BOLLI, P., MACCAFERRI, A., MACCAFERRI, G., MORSIANI, M., MUREDDU, L., NATALE, V., OLM, L., ORFEI, A., **PERNECHELE, C.**, POMA, A., PORCEDDU, I., ROSSI, L., ZACCHIROLI, G.,
Sardinia Radio Telescope: the new Italian project,
SPIE Proceedings, Vol. 5489, pp. 773-783, 2004.
- P44:** GRUEFF, G., ALVITO, G., AMBROSINI, R., BOLLI, P., D'AMICO, N., MACCAFERRI, A., MACCAFERRI, G., MORSIANI, M., MUREDDU, L., NATALE, V., OLM, L., ORFEI, A., **PERNECHELE, C.**, POMA, A., PORCEDDU, I., ROSSI, L., ZACCHIROLI, G.,
The Sardinia Radio Telescope,
Mem. SAIT, Vol. 5, pp. 351, 2004.
- P43:** PISANU, T., MORSIANI, M., **PERNECHELE, C.**, BUFFA, F., VARGIU, G.,
How to improve the high frequency capabilities of the SRT,
Proceedings of the 7th Symp. of the European VLBI Network, p. 293, 2004.
- P42:** BERTON, A., GRATTON, R., FELDT, M., DESIDERA, S., MASCIADRI, E., TURATTO, M., CLAUDI, R., PIOTTO, G., **PERNECHELE, C.**, ANTICHI, J.,
Simulations of exoplanets detection obtained with a high-contrast imaging instrument: CHEOPS,
SPIE Proceedings, Vol. 5490, pp. 672-682, 2004.
- P41:** CLAUDI, R., TURATTO, M., GRATTON, R., ANTICHI, J., BUSON, S., **PERNECHELE, C.**, DESIDERA, S., BARUFFOLO, A., LIMA, J., ALCALA', J., CASCONI, E., PIOTTO, G., ORTOLANI, S., SCHMID, H., FELDT, M., NEUHAUSER, R., WALTERS, R., BERTON, A., BAGNARA, P.,
CHEOPS NIR IFS: exploring stars neighborhood spectroscopically,
SPIE Proceedings, Vol. 5492, pp. 1351-1361, 2004.
- P40:** CLAUDI, R., COSTA, J., FELDT, M., GRATTON, R., AMORIN, A., HENNINGS, T., HIPPLER, S., NEUHAUSER, R., **PERNECHELE, C.**, TURATTO, M., SCHMID, H., WALTERS, R., ZINNECKER, H.,
CHEOPS: a second generation VLT instrument for the direct detection of exo-planets,

ESA Publications Division, in “Second Eddington Workshop: Stellar structure and habitable planet finding”, pp. 301-304, 2004.

- P39:** BORTOLETTO, F., BONOLI, C., GIRO, E., **PERNECHELE, C.**, FRANCESCHINI, A., CONCONI, P., MAZZOLENI, R., MOLINARI, E., ZERBI, F.,
The Italian participation to the NGST medium IR instrumentation,
Mem. SAIT, Vol. 74, p. 239, 2003.
- P38:** **PERNECHELE, C.**, MUNARI, U.,
Bragg gratings in multimode fiber optics for wavelength calibration of GAIA and RAVE spectra, *ASP Conf Series*, Vol. 298, p. 93, 2003.
- P37:** **PERNECHELE, C.**, GIRO, E., FANTINEL, D.,
Device for optical linear polarization measurements with a single exposure, *SPIE Proceedings*, Vol. 4843, pp. 156-163, 2003.
- P36:** GIRO, E., BONOLI, C., LEONE, F., MOLINARI, E., **PERNECHELE, C.**, ZACCHEI, A.,
Polarization properties at the nasmyth focus of alt-azimuth TNG telescope,
SPIE Proceedings, Vol. 4843, p. 456-464, 2003.
- P35:** BIANCO, A., MOLINARI, E., CONCONI, P., CRIMI, G., GIRO, E., **PERNECHELE, C.**, ZERBI, M. F.,
VPHG in the cold,
SPIE Proceedings, Vol. 4842, p. 22-30, 2003.
- P34:** MOLINARI, E., BERTARELLI, C., BIANCO, A., BORTOLETTO, F., CONCONI, P., CRIMI, G., GALLAZZI, M. C., GIRO, E., LUCOTTI, A., **PERNECHELE, C.**, ZERBI, M. F., ZERBI, G.,
Rewritable photochromic focal plane masks,
SPIE Proceedings, Vol. 4842, pp. 335-342, 2003.
- P33:** GIRO, E., **PERNECHELE, C.**, MUNARI, U., BOSCHI, F., TOMOV, T.,
Spectro/photo-polarimetry of symbiotic stars at Asiago Observatory,
ASP Conference Series, Vol. 303 p. 468, 2003.
- P32:** GIRO, E., DESIDERA, S., MUNARI, U., **PERNECHELE, C.**, BAUME, G.,
V838 Monocerotis,
IAU Circ.#8025, 2002.
- P31:** MOLINARI, E., ZERBI, G., BORTOLETTO, F., BERTARELLI, C., BIANCO, A., CONCONI, P., GALLAZZI, M. C., MAZZOLENI, R., **PERNECHELE, C.**, ZERBI, M. F., GIRO, E.,
Photochromic polymers for erasable focal plane masks and re-writable volume phase holographic gratings,
SPIE Proceedings, Vol. 4485, p. 469-477, 2001.
- P30:** BENETTI, S., ALTAVILLA, G., PASTORELLO, A., TURATTO, M., DESIDERA, S., GIRO, E., **PERNECHELE, C.**, BORTOLUSSI, A., CAPPELLARO, E.,
Supernova 2001if near MCG +06-6-43,
IAU Circ.#7779, 2001.
- P29:** BENETTI, S., ALTAVILLA, G., CAPPELLARO, E., DESIDERA, S., FANTINEL, D., GIRO, E., LESSIO, L., PASTORELLO, A., **PERNECHELE, C.**, TURATTO, M.,
Supernova 2000fe in UGG 4870,
IAU Circ.#7545, 2000.
- P28:** **PERNECHELE, C.**, BENETTI, S., CAPPELLARO, E., DESIDERA, S., GIRO, E., TRAVERSO, L.,
Supernova 2000ev in UGG 3500,
IAU Circ.#7529, 2000.

- P27:** BORTOLETTO, F., BENETTI, S., BONANNO, G., BONOLI, C., COSENTINO, R., D'ALESSANDRO, M., FANTINEL, D., GHEDINA, A., GIRO, E., MAGAZZU', A., **PERNECHELE, C.**, VUERLI, C.,
The Optical Imager "Galileo" (OIG),
Scientific dedication of the TNG, p.148-157, 2000.
- P26:** BORTOLETTO, F., BENETTI, S., BONANNO, G., BONOLI, C., BRUNO, P., CARMONA, C., CONCONI, P., CORCIONE, L., COSENTINO, R., D'ALESSANDRO, M., DOMINGUEZ, R., FANTINEL, D., GALLI, A., GARDIOL, D., GHEDINA, A., GHINASSI, F., GIRO, E., GONZALES, C., GONZALES, M., GUERRA, J., MAGAZZU', A., MANCINI, D., MARCHETTI, E., MEDINA, J., PASIAN, F., PAULLI, F., **PERNECHELE, C.**, PUCILLO, RAGAZZONI, R., M., RIVEROL, C., RIVEROL, L., SCHIPANI, P., SMAREGLIA, R., TESSICINI, G., TRANCHO, J., VUERLI, C., ZACCHEI, A.,
The TNG Commissioning Phase,
Scientific dedication of the TNG, p.22-35, 2000.
- P25:** **PERNECHELE, C.**, BORTOLETTO, F., GIRO, E.,
Neural network algorithm controlling a hexapod platform,
IEEE-INNS-ENNS International Joint Conference on Neural Networks and Neural Computing, Vol. IV, p. 349, 2000.
- P24:** **PERNECHELE, C.**, BORTOLETTO, F., GARDIOL, D., GHEDINA, A., MARCHETTI, E.,
Ultimate test results on the active optics system of the Galileo Telescope,
SPIE Proceedings, Vol. 4003, p. 116-121, 2000.
- P23:** ZERBI, F. M., BORTOLETTO, F., CONCONI, P., GARDIOL, D., MOLINARI, E., **PERNECHELE, C.**,
Conceptual design for a NIR prime focus camera for the ESO 3.6,
SPIE Proceedings, Vol. 4008, p. 822, 2000.
- P22:** **PERNECHELE, C.**, BORTOLETTO, F., CONCONI, P., GARDIOL, D., MOLINARI, E., ZERBI, F. M.,
Preliminary design of a NIR prime focus corrector for the Galileo Telescope, *SPIE Proceedings*, Vol. 4008, p. 907, 2000.
- P21:** **PERNECHELE, C.**, FANTINEL, D., GIRO, E.,
Cima Ekar: controllo attivo di M2 con analisi del fronte d'onda,
Workshop nazionale sui piccoli telescopi, Roma, 1999.
- P20:** FORNASIER, S., **PERNECHELE, C.**, BARBIERI, C.,
The Asiago Observatory's reflectogoniometer,
Bull. American Astron. Soc., DPS, Vol. 31, N. 4, p. 1151, 1999.
- P19:** BENETTI, S., MOROSSO, C., BORTOLETTO, F., COSENTINO, R., GARDIOL, D., GHEDINA, A., GHINASSI, F., MAGAZZU, A., MARCHETTI, E., **PERNECHELE, C.**, ZACCHEI, A., AXON, D., PACKHAM, C., HUMPHREY, A., RAY, J., SMITH, J.,
Supernova 1999cn in MCG +2-38-043,
IAU Circ.#7202, 1999.
- P18:** GHEDINA, A., BORTOLETTO, F., MARCHETTI, E., GARDIOL, D., RAGAZZONI, R., **PERNECHELE, C.**,
The optics of Galileo Telescope: alignment and active optics preliminary results,
IEEE Proceedings IMTC/99, Vol. 2, p. 1223-1227, 1999.
- P17:** **PERNECHELE, C.**, BORTOLETTO, F., CAVAZZA, A., GHEDINA, A., PAULLI, F., RAGAZZONI, R.,
Optical alignment of the Galileo Telescope: results and on-sky test before active optics final tuning,
SPIE Proceedings, Vol. 3737, p. 594-600, 1999.
- P16:** GARDIOL, D., **PERNECHELE, C.**,
On-line control of an active telescope secondary mirror,
SPIE Proceedings, Vol. 3737, p. 601-607, 1999.

- P15:** VUERLI, C., BONOLI, C., BALESTRA, A., BARUFFOLO, A., CORCIONE, L., FANTINEL, D., GARDIOL, D., MARCUCCI, P., PASIAN, F., **PERNECHELE, C.**, PUCILLO, M., SMAREGLIA, R.,
Software integration at TNG. Active optics: a practical example,
SPIE Proceedings, Vol. 3351, p. 425-439, 1998.
- P14:** RAGAZZONI, R., **PERNECHELE, C.**, CAVAZZA, A.,
Aligning the TNG: definition of the main axes,
TNG News, No. 17, p. 8, 1997.
- P13:** **PERNECHELE, C.**, BORTOLETTO, F., REIF, K.,
Position-control for active secondary mirror of a two-mirror telescope,
SPIE Proceedings, Vol. 3112, p. 172-180, 1997.
- P12:** NOCI, G., KOHL, J.L., ANTONUCCI, E., TONDELLO, G., HUBER, M.C.E., FINESCHI, S., GARDNER, L.D., KORENDYKE, C.M., NICOLOSI, P., ROMOLI, M., SPADARO, D., MACCARI, L., RAYMOND, C.J., SIEGMUND, O.H.W., BENNA, C., CIARAVELLA, A., GIORDANO, S., MICHELS, J., MODIGLIANI, A., NALETTO, G., PANASYUK, A., **PERNECHELE, C.**, POLETTO, G., SMITH, P.L., STRACHAN, L.,
The quiescent corona and slow solar wind,
ESA SP-404, p. 75, 1997.
- P11:** GARDNER, LARRY D., KOHL, J. L., DAIGNEAU, P. S., DENNIS, E. F., FINESCHI, S., MICHELS, J., NYSTROM, G. U., PANASYUK, A., RAYMOND, J. C., REISENFELD, D. J., SMITH, PETER L., STRACHAN, LEONARD, SULEIMAN, R., NOCI, G. C., ROMOLI, M., CIARAVELLA, A., MODIGLIANI, A., HUBER, M. C., ANTONUCCI, E., BENNA, C., GIORDANO, S., TONDELLO, G., NICOLOSI, P., NALETTO, G., **PERNECHELE, C.**, SPADARO, D., SIEGMUND, O. H., ALLEGRA, A., CAROSSO, P. A., JHABVALA, M. D.,
Stray light, radiometric, and spectral characterization of UVCS/SOHO: laboratory calibration and flight performance,
SPIE Proceedings, Vol. 2831, p. 2-24, 1996.
- P10:** KOHL, J. L., NOCI, G., ANTONUCCI, E., TONDELLO, G., HUBER, M. C. E., BENNA, C., CIARAVELLA, A., FINESCHI, S., GARDNER, L. D., GIORDANO, S., KAROVSKA, M., MICHELS, J., NALETTO, G., NICOLOSI, P., POLETTO, G., **PERNECHELE, C.**, RAYMOND, J. C., ROMOLI, M., SIEGMUND, O. H. W., SPADARO, D., SMITH, P. L., STRACHAN, L.
First Results from the SOHO Ultraviolet Coronagraph Spectrometer,
Bull. American Astron. Soc., Vol. 188, N. 4906, p. 4906, 1996.
- P9:** GARDNER, L. D., KOHL, J. L.; NOCI, G., ANTONUCCI, E., TONDELLO, G., HUBER, M. C. E., CIARAVELLA, A., FINESCHI, S., GIORDANO, S., MORAN, T., NALETTO, G., NICOLOSI, P., ROMOLI, M., STRACHAN, L., BENNA, C., **PERNECHELE, C.**, RAYMOND, J. C., SIEGMUND, O. H. W., SPADARO, D., SMITH, P. L.,
In-Flight Performance of the SOHO Ultraviolet Coronagraph Spectrometer,
Bull. American Astron. Soc., Vol. 188, N. 3705, p. 3705, 1996.
- P8:** **PERNECHELE, C.**, NALETTO, G., NICOLOSI, P., POLETTO, L., TONDELLO, G.,
VUV optical performances of the spectrometer of the UVCS instrument for SOHO,
SPIE Proceedings, Vol. 2517, p. 79-88, 1995.
- P7:** RAYMOND, J. C., KOHL, J. L., ESSER, R., GARDNER, L. D., HABBAL, S., STRACHAN, L., VAN BALLEGOOIJEN, A., NOCI, G., FINESCHI, S., ROMOLI, M., HUBER, M., ANTONUCCI, BENNA, C., VON DER LUHE, O., NALETTO, G., NICOLOSI, P., **PERNECHELE, C.**, TONDELLO, G., GEISS, J., GLOECKLER, G., SPADARO, D., DAIGNEAU, P., NYSTROM, G., ALLEGRA, A., BASILE, G., BRUSA, R., WOOD, B., SIEGMUND, O.,
The Ultraviolet Coronagraph Spectrometer for the Solar and Heliospheric Observatory,
Bulleting of the American Astronomical Society, Vol. 27, p. 970, 1995.
- P6:** **PERNECHELE, C.**, POLETTO, L., NICOLOSI, P., NALETTO, G.,
Spectral resolution improvement technique for a spectrograph mounting a discrete array detector,
SPIE Proceedings, Vol. 2517, p. 62-70, 1995.

- P5:** KOHL, J. L., ESSER, R., GARDNER, L. D., HABBAL, S., DAIGNEAU, P. S., NYSTROM, G. U., RAYMOND, JOHN C., STRACHAN, L., VAN BALLEGOIJEN, A. A., NOCI, G., FINESCHI, S., ROMOLI, M., CIARAVELLA, A., MODIGLIANI, A., HUBER, M. C., ANTONUCCI, E., BENNA, C., GIORDANO, S., VON DER LUEHE, O., TONDELLO, G., NICOLSI, P., NALETTO, G., **PERNECHELE, C.**, GEISS, J., GLOECKLER, G., POLETO, G., SPADARO, D., ALLEGRA, A., BASILE, G., BRUSA, R., WOOD, B., SIEGMUND, O. H.,
Ultraviolet Coronagraph Spectrometer for the Solar and Heliospheric Observatory: instrument description and calibration overview,
SPIE Proceedings, Vol. 2517, p. 40-61, 1995.
- P4:** NALETTO, G., NICOLSI, P., **PERNECHELE, C.**, POLETO, L., TONDELLO, G.,
VUV optical performances of the SOHO/Ultraviolet Coronagraph Spectrometer,
SPIE Proceedings, Vol. 2011, p. 577-587, 1994.
- P3:** BECKER-ROSS, H., FLOREK, S., GREWING, M., KAPPELMANN, N., KRAEMER, GERHARD, NALETTO, G., **PERNECHELE, C.**, SCHOENBERNER, D.; TANZI, E. G.; TONDELLO, G.,
Spectrum ultraviolet mission (SUV): a general purpose ultraviolet observatory,
SPIE Proceedings, Vol. 2209, p. 557-567, 1994.
- P2:** FINESCHI, S., NALETTO, G., NICOLSI, P., NOCI, G., **PERNECHELE, C.**, ROMOLI, M., SPADARO, D., TONDELLO, G.,
Ultraviolet Coronagraph Spectrometer (UVCS) for the Solar and Heliospheric (SOHO) mission,
SPIE Proceedings, Vol. 2209, p. 348-359, 1994.
- P1:** BARBIERI, C., CREMONESE, G., **PERNECHELE, C.**,
La nube di sodio su Io,
Atti della Accademia Nazionale dei Lincei, Serie IX, Vol. I, fascicolo 3, pp. 235-244, 1990.

Patents, Copyright ownership & Business Plans

- B1:** **PERNECHELE, C.**,
"Progettazione di un coating per lenti oftalmologiche",
Deposito SIAE – sezione OLAF, #2009005363, 10 novembre 2009.
- B2:** **PERNECHELE, C.**,
"Metodo numerico per la progettazione di un proiettore ottico a basso costo",
Deposito SIAE – sezione OLAF, #2012004092, 05 novembre 2012.
- B3:** **PERNECHELE, C.**, FAVIO BORTOLETTO, SIMONETTA CHINELLATO, FEDERICO MANZAN,
"Profilometro per la determinazione di profile di oggetto presentanti sottosquadri e metodo per determinare il profilo di un master horn e di un horn",
Deposito (July, 28th, 2010), #ITBO20100483.
- B4:** **PERNECHELE, C.**,
"Panoramic bifocal lens",
Granted Italian patent #0001409611 (Sept, 12th, 2014).
- B5:** **PERNECHELE, C.**,
"Interferometro a fronte d'onda a dispersione spaziale segmentata, dispositivi e metodi basati sullo stesso",
Deposito #102018000003636 (March, 15th, 2018).
- B6:** **PERNECHELE, C. & POLIFEMO TEAM**,
"Panoramic Multifunctional Sensor for Small/Micro Satellite", Business plan funded within the H2020 SME-Instrument measure (doc H2020-SMEInst-2014-2015/H2020-SMEINST-1-2015-709501), 2016.

Awards

A1: Special Act Group Award for contribution to the Ultraviolet Coronagraph Spectrometer, **NASA – Goddard Space Flight Center, 1995.**

A2: Award for contribution to the Solar and Heliospheric Observatory, **ESA, 1995.**

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