

## Attachment 1 to the CV

### List of the publications (also including internal technical reports) @ 6 March 2013

by Rodolfo Canestrari

(From older to newer)

- paper1.** Spiga, D., Burkert, W., Hartner, G., Budau, B., Vernani, D., **Canestrari, R.**, Pareschi, G., Citterio, O., Basso, S., Mazzoleni, F., et al. *X-ray and topographic characterization of a W/Si graded multilayer coated mirror shell (n.333) at PANTER facility (april 2005).*, INAF/OAB Internal Report 08/2005.
- paper2.** Spiga, D., **Canestrari, R.**, Vernani, D., Freyberg, M., Bukert, W., Hartner, G., Budau, B., Pareschi, G., Citterio, O., Basso, S., et al. *Mirror shell 338 (Jet-X mandrel n.1 sized shell): Achieved tests at Panter facility and INAF/OAB.*, INAF/OAB Internal Report 02/2006.
- paper3.** **Canestrari, R.** *Telescopi per astronomia in raggi X duri: sviluppi tecnologici di specchi multilayer.* Tesi di Laurea, Università di Bologna, 03/2006
- paper4.** **Canestrari, R.**, Valtolina, R., Spiga, D., Pareschi, G. *Characterization of a PECVD-SiC replicated mirror sample.*, INAF/OAB Internal report 04/2006.
- paper5.** **Canestrari, R.**, Pareschi, G. *Characterization of an antenna for RFID systems.* INAF-OAB Internal report 07/2006.
- paper6.** Muleri, F., Bellazzini, R., Costa, E., Soffitta, P., Lazzarotto, F., Feroci, M., Pacciani, L., Rubini, A., Morelli, E., Baldini, L., Bitti, F., Brez, A., Cavalca, F., Latronico, L., Massai, M. M., Omodei, N., Pinchera, M., Sgrò, C., Spandre, G., Matt, G., Perola, G. C., Citterio, O., Pareschi, G., Cotroneo, V., Spiga, D., **Canestrari, R.** *An x-ray polarimeter for hard x-ray optics.* Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 6266. (2006). <http://adsabs.harvard.edu/abs/2006SPIE.6266E..85M>
- paper7.** Spiga, D., Mirone, A., Pareschi, G., **Canestrari, R.**, Cotroneo, V., Ferrari, C., Ferrero, C., Lazzarini, L., Vernani, D. *Characterization of multilayer stack parameters from x-ray reflectivity data using the PPM program: measurements and comparison with TEM results.* Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 6266. (2006). <http://adsabs.harvard.edu/abs/2006SPIE.6266E..33S>
- paper8.** **Canestrari, R.**, Spiga, D., Pareschi, G. *Analysis of microroughness evolution in X-ray astronomical multilayer mirrors by surface topography with the MPES program and by X-ray scattering.* Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 6266. (2006). <http://adsabs.harvard.edu/abs/2006SPIE.6266E..30C>

- paper9.** Spiga, D., **Canestrari, R.**, Pareschi, G., Basso, S., Bruni, R., Burkert, W., Budau, B., Freyberg, M., Gorenstein, P., Hartner, G., et al. *X-ray optic 346 manufactured at MSFC and Harvard-CfA: results of tests at PANTER facility and surface characterization.*, INAF/OAB internal report 01/2007.
- paper10.** **Canestrari, R.**, Spiga, D., Pareschi, G., Ghigo, M., Arumainathan, S., Destefanis, G., Fabbri, P., Ferrari, C., Guaita, C., Nicolosi, P., et al. *Surface roughness and bulk characterization of SiC and Aluminium samples with PECVD-SiC cladding.*, Internal report INAF/OAB 03/2007.
- paper11.** Spiga, D., **Canestrari, R.**, Pareschi, G., Basso, S., Bruni, R., Budau, B., Burkert, W., Colombo, D., Destefanis, G., Freyberg, M., et al. *Results of tests performed at PANTER and INAF/OAB on the X-ray optic 349 manufactured at MSFC and Harvard-CfA.*, INAF-OAB technical report 02/2007.
- paper12.** Spiga, D., Pareschi, G., Cotroneo, V., **Canestrari, R.**, Vernani, D., Mirone, A., Ferrero, C., Ferrari, C., Lazzarini, L. *Multilayer coatings for x-ray mirrors: extraction of stack parameters from x-ray reflectivity scans and comparison with transmission electron microscopy results.* Optical Engineering 46, 086501. (2007).  
<http://adsabs.harvard.edu/abs/2007OptEn..46h6501S>
- paper13.** Ghigo, M., **Canestrari, R.**, Spiga, D., Novi, A. *Correction of high spatial frequency errors on optical surfaces by means of ion beam figuring.* Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 6671. (2007).  
<http://adsabs.harvard.edu/abs/2007SPIE.6671E..29G>
- paper14.** Ghigo, M., **Canestrari, R.**, Basso, S., Spiga, D. *Development of lightweight optical segments for adaptive optics.* Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 6691. (2007). <http://adsabs.harvard.edu/abs/2007SPIE.6691E..14G>
- paper15.** Spiga, D., Sironi, G., Cotroneo, V., **Canestrari, R.**, Destefanis, G. *Silicon mirrors for the XEUS X-ray telescope pore optics: microroughness characterization.*, INAF/OAB Technical report 01/2008.
- paper16.** Spiga, D., Pareschi, G., **Canestrari, R.**, Cotroneo, V. *Estimation of the X-ray scattering impact in imaging degradation for the SIMBOL-X telescope.* Memorie della Societa Astronomica Italiana 79, 278. (2008).  
<http://adsabs.harvard.edu/abs/2008MmSAI..79..278S>
- paper17.** Novi, A., **Canestrari, R.**, Ghigo, M., Hayano, Y. *Wavefront corrective lens for the Subaru Laser Launching Telescope.* Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 7018. (2008).  
<http://adsabs.harvard.edu/abs/2008SPIE.7018E...4N>
- paper18.** Pareschi, G., Giro, E., Banham, R., Basso, S., Bastieri, D., **Canestrari, R.**, Ceppatelli, G., Citterio, O., Doro, M., Ghigo, M., Marioni, F., Mariotti, M., Salvati, M., Sanvito, F., Vernani, D. *Glass mirrors by cold slumping to cover 100 m<sup>2</sup> of the MAGIC II Cherenkov telescope reflecting surface.* Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 7018. (2008). <http://adsabs.harvard.edu/abs/2008SPIE.7018E..28P>

- paper19.** Ghigo, M., **Canestrari, R.**, Proserpio, L., Dell'Orto, E., Basso, S., Citterio, O., Pareschi, G., Parodi, G. *Slumped glass option for making the XEUS mirrors: preliminary design and ongoing developments.* Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 7011. (2008). <http://adsabs.harvard.edu/abs/2008SPIE.7011E..43G>
- paper20.** **Canestrari, R.**, Ghigo, M., Basso, S., Spiga, D., Proserpio, L. *Lightweight optical segment prototype for adaptive optics manufactured by hot slumping.* Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 7015. (2008). <http://adsabs.harvard.edu/abs/2008SPIE.7015E.104C>
- paper21.** **Canestrari, R.**, Ghigo, M., Pareschi, G., Basso, S., Proserpio, L. *Investigation of a novel slumping technique for the manufacturing of stiff and lightweight optical mirrors.* Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 7018. (2008). <http://adsabs.harvard.edu/abs/2008SPIE.7018E..10C>
- paper22.** Spiga, D., Freyberg, M., Burkert, W., Hartner, G., Budau, B., Mattarello, V., Garoli, D., Boscolo Marchi, E., Basso, S., Valtolina, R., Mattaini, E., **Canestrari, R.**, Garegnani, D., Tagliaferri, G., Pareschi, G., Moretti, A. *X-ray tests at PANTER on Nickel-Cobalt EM3 (phase A) SIMBOL-X optic prototype.* INAF/OAB internal report 01/2009.
- paper23.** Genet, R., Aurigema, A., Badger, S., Bartels, M., Brodhacker, K. L., **Canestrari, R.**, Chen, P., Connelley, M., Davis, D., Ghigo, M., Jones, G., Liu, T., Mendex, E., Pareschi, G., Richardson, T., Rowe, D., Schmidt, J., Shah, K., Villasenor, E. *Lightweight Mirror Developments.* Society for Astronomical Sciences Annual Symposium 28, 27. (2009). <http://adsabs.harvard.edu/abs/2009SASS...28...27G>
- paper24.** Pareschi, G., Ghigo, M., Basso, S., Citterio, O., **Canestrari, R.**, Dell'Orto, E., Conconi, P., Parodi, G., Proserpio, L. *Design And Development The IXO Mirrors By Innovative Slumping Glass Technologies.* Bulletin of the American Astronomical Society 41, 457.08. (2009). <http://adsabs.harvard.edu/abs/2009AAS...21345708P>
- paper25.** Pareschi, G., Ghigo, M., **Canestrari, R.**, Proserpio, L., Basso, S., Citterio, O. *Stiff and Lightweight Optical Mirrors Made by Glass Slumping with Foamed Core.* American Astronomical Society Meeting Abstracts 214, #600.03. (2009). <http://adsabs.harvard.edu/abs/2009AAS...21460003P>
- paper26.** Doro, M., Foerster, A., Brun, P., **Canestrari, R.**, Chadwick, P., Font, L., Ghigo, M., Lorenz, E., Mariotti, M., Niemiec, J., Pareschi, G., Peyaud, B., Seweryn, K., Stodulski, M. *Mirror Facet Technologies for the Telescopes of the CTA Observatory.* Proceedings of the 31st ICRC. (2009)
- paper27.** Basso, S.; Ghigo, M.; Farinato, J.; Magrin, D.; Munari, M.; Piazza, D.; Pagano, I.; Ragazzoni, R.; Scuderi, S.; Arcidiacono, C.; **Canestrari, R.**; Dima, M.; Gambicorti, L.; Gentile, G.; Pace, E.; Spanò, P.; Viotto, V. *Assessment phase - pplc final design report - appendix d - telescope optical units.* PLATO.INAF.TOU.REP.1045 (2009)
- paper28.** Ghigo, M., Cornelli, S., **Canestrari, R.**, Garegnani, D. *Development of a large ion beam figuring facility for correction of optics up to 1.7 m diameter.* Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 7426. (2009). <http://adsabs.harvard.edu/abs/2009SPIE.7426E..31G>

- paper29.** Ghigo, M., Basso, S., **Canestrari, R.**, Conconi, P., Citterio, O., Civitani, M., Dell'Orto, E., Gallieni, D., Pareschi, G., Parodi, G., Proserpio, L., Spiga, D. *Hot slumping glass technology and integration process to manufacture a grazing incidence scaled prototype for the IXO telescope modules.* Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 7437. (2009). <http://adsabs.harvard.edu/abs/2009SPIE.7437E..22G>
- paper30.** Foerster, A., Doro, M., Brun, P., **Canestrari, R.**, Chadwick, P., Font, L., Ghigo, M., Lorenz, E., Mariotti, M., Michalowski, J., Niemiec, J., Pareschi, G., Peyaud, B., Seweryn, K. *Mirror development for CTA.* Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 7437. (2009). <http://adsabs.harvard.edu/abs/2009SPIE.7437E..35F>
- paper31.** Ghigo, M., Basso, S., **Canestrari, R.**, Proserpio, L. *Development of hot slumping technique and last optical performances obtained on a 500 mm diameter slumped segment prototype for adaptive optics.* Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 7439. (2009). <http://adsabs.harvard.edu/abs/2009SPIE.7439E..16G>
- paper32.** **Canestrari, R.**, Ghigo, M., Pareschi, G., Basso, S., Motta, G., Doro, M., Giro, E., Lessio, L. *Techniques for the manufacturing of stiff and lightweight optical mirror panels based on slumping of glass sheets: concepts and results.* Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 7437. (2009). <http://adsabs.harvard.edu/abs/2009SPIE.7437E..34C>
- paper33.** **Canestrari, R.**, Pareschi, G., Ghigo, M. *Replica Process for Mirror Manufacturing; Glass Slumping and Foamglas Backing.* Chapter 22 in: Alt-Az Initiative: Telescopes, Mirrors & Instrumental Developments. April 2010. Genet, R., Johnson, J. & Wallen, V. editors. (2010)
- paper34.** **Canestrari, R.** *Thin glass sheets for innovative mirrors in astronomical applications.* Tesi di Dottorato di Ricerca, Università dell'Insubria, 07/2010
- paper35.** **Canestrari, R.**, Motta, G., Pareschi, G., Basso, S., Doro, M., Giro, E., Lessio, L. *Composite panels for optical mirrors for Cherenkov Telescopes: development of the cold glass slumping technology.* Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 7739, 07/2010. <http://adsabs.harvard.edu/abs/2010SPIE.7739E..12C>
- paper36.** **Canestrari, R.**, Pareschi, G., Ghigo, M., Motta, G. *Composite glass panels for stiff and lightweight optical mirrors: a novel approach with preliminary results.* 8<sup>th</sup> International Conference on Space Optics (ICSO), Rhodes Island, Greece, 10/2010. <http://www.icsoproceedings.org/>
- paper37.** **Canestrari, R.**, *Specifications for the mirror facets for the Medium Size Telescope of the CTA observatory project.* Internal report ASTRI-SPEC-OAB-8000-001, 01/2011
- paper38.** **Canestrari, R.** *Reflecting surfaces of novel Cherenkov telescopes.* SPIE Newsroom, <http://spie.org/x48508.xml?highlight=x2418&ArticleID=x48508>, DOI: 10.1117/2.1201105.003727, 05/2011
- paper39.** **Canestrari, R.**, *Statement of the Work for the engineering structural design of a dual-mirror Cherenkov telescope prototype for the ASTRI project: the Small Size Telescope of the CTA observatory.* Internal report ASTRI-SOW-OAB-3100-002, 05/2011

- paper40.** Canestrari, R., *Statement of the Work for the engineering designs of mechanical subsystems for a dual-mirror Cherenkov telescope prototype for the ASTRI project: the Small Size Telescope of the CTA observatory.* Internal report ASTRI-SOW-OAB-3100-003, 05/2011
- paper41.** Canestrari, R., Catalano, O., Conconi, P., Pareschi, G., Sacco, B., Vercellone, S., on behalf of the ASTRI collaboration *The Italian ASTRI program: an end-to-end dual-mirror telescope prototype for Cherenkov light imaging above few TeV.* 32<sup>nd</sup> International Cosmic Ray Conference, Beijing, 08/2011. <http://www.ihep.ac.cn/english/conference/icrc2011/paper/proc/v9.pdf>
- paper42.** White, R., Di Pierro, F., Greenshaw, T., Pareschi, G., Canestrari R., for the CTA Consortium, *Telescopes for the High Energy Section of the Cherenkov Telescope Array.* 32<sup>nd</sup> International Cosmic Ray Conference, Beijing, 08/2011. <http://www.ihep.ac.cn/english/conference/icrc2011/paper/proc/v9.pdf>
- paper43.** Foerster, A., Arlen, T., Bonardi, A., Brun, P., Canestrari, R., et al, *Mirror development for CTA.* 32<sup>nd</sup> International Cosmic Ray Conference, Beijing, 08/2011. <http://www.ihep.ac.cn/english/conference/icrc2011/paper/proc/v9.pdf>
- paper44.** Foerster, A., Canestrari, R., Chadwick, P., Knappy, A., et al, *High-reflectance, High-durability Coatings for IACT Mirrors.* 32<sup>nd</sup> International Cosmic Ray Conference, Beijing, 08/2011. <http://www.ihep.ac.cn/english/conference/icrc2011/paper/proc/v9.pdf>
- paper45.** Canestrari, R., *Sviluppo di tecnologie ottiche per la realizzazione di guide di luce di piccole dimensioni per rivelatori fotomoltiplicatori al Silicio SiPM per telescopi Cherenkov.* Internal report ASTRI-SOW-OAB-3100-005, 09/2011
- paper46.** Canestrari, R., *Sviluppo di tecnologie per depositi sottili ottimizzati per specchi per astronomia Cherenkov.* Internal report ASTRI-SOW-OAB-3100-006, 09/2011
- paper47.** Salmaso, B., Spiga, D., Canestrari, R. and Raimondi, L., *Accurate modeling of periodic and graded multilayer x-ray scattering from surface microroughness characterization.* Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 8147, 09/2011. <http://adsabs.harvard.edu/abs/2011SPIE.8147E..33S>
- paper48.** Canestrari, R., *The optical layout of the ASTRI prototype: 4 meter Schwarzschild-Couder Cherenkov telescope for CTA with 10° of field of view.* Internal report ASTRI-IR-OAB-3100-009, 10/2011
- paper49.** Actis, M., et al, *Design concepts for the Cherenkov Telescope Array CTA: an advanced facility for ground-based high-energy gamma-ray astronomy.* Experimental Astronomy, Springer, 11/2011. <http://adsabs.harvard.edu/abs/2011ExA....32..193A>
- paper50.** Canestrari, R., *Comments on the possible parking and maintenance positions.* Internal report ASTRI-TN-OAB-3100-010. 11/2011
- paper51.** Canestrari, R., *Progress report on the mechanical design of the SST-DM telescope.* Internal report ASTRI-PR-OAB-3110-002. 12/2011

*Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali".*

- paper52.** Canestrari, R., *Progress report on the development of the manufacturing technology for the M1 mirror segments*. Internal report ASTRI-PR-OAB-3120-003. 12/2011
- paper53.** Canestrari, R., *Error Budget Tree for the ASTRI prototype: structure and mirrors*. Internal report ASTRI-SPEC-OAB-3100-002. 04/2012
- paper54.** Canestrari, R., *ASTRI SST design loads*. Internal report ASTRI-SPEC-OAB-3100-003. 04/2012
- paper55.** Canestrari, R., *Mechanical characterization of SiPM MPPC S11828-3344M*. Internal report ASTRI-IR-OAB-3240-015. 04/2012
- paper56.** Canestrari, R. on behalf of the CTA Consortium, *Technological developments toward the small size telescopes of the Cherenkov Telescope Array*, Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 8444, 09/2012. <http://adsabs.harvard.edu/abs/2012SPIE.8444E..39C>
- paper57.** Riva, M., Basso, S., Canestrari, R., Conconi, P., Fugazza, D., Ghigo, M., Landoni, M., Pareschi, G., Spanó, P., Tomelleri, R., Zerbi, F. M., *An innovative alt-alt telescope for small observatories and amateur astronomers*, Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series 8444, 09/2012. <http://adsabs.harvard.edu/abs/2012SPIE.8444E..42R>
- paper58.** Canestrari, R., *Mechanical Design Description*. Internal report ASTRI-DES-OAB-3100-003, 11/2012
- paper59.** Canestrari, R., *Optical Design Description*. Internal report ASTRI-DES-OAB-3100-002, 11/2012
- paper60.** Vercellone, S., Catalano, O., Maccarone, M.C., Di Pierro, F., Vallania, P., Bonnoli, G., Canestrari, R., Pareschi, G., Tosti, G., for the ASTRI collaboration, *The ASTRI Project: prototype status and future plans for a Cherenkov dual-mirror small-telescope array*, 4<sup>th</sup> Fermi Symposium, 11/2012
- paper61.** Canestrari, R., Pareschi, G., Parodi, G., Martelli, F., Missaglia, N. and Banham, R., *Cold-shaping of thin glass foils as a method for mirror processing: from basic concepts to mass production of mirrors*, Optical Engineering Special edition, 52(5), 05/2013.