
Edward L. Chapin

Curriculum Vitæ

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Research

- **galaxy formation and evolution:** I am interested in the evolution of galaxies from the early Universe to the present day; I primarily use large surveys in the submillimetre and far-infrared to trace the most active, dust-enshrouded star-forming epochs of galaxies, and interpret the results in the context of phenomenological models for the evolution of local luminosity functions
- **instrumentation:** I have extensive experience commissioning, designing observing strategies, and writing data analysis software for several submillimetre cameras
- **statistical methods:** some of the areas I have worked in include image reconstruction, properties of source-confused maps (source identification, $P(D)$ and angular power-spectral modelling, stacking), multi-wavelength source catalogue cross-identifications, luminosity function estimators, and photometric redshifts

Employment history and education

07/2008 –	Research Associate	University of British Columbia, Canada
07/2005 – 06/2008	Postdoctoral Fellow	University of British Columbia, Canada
07/2004 – 06/2005	Postdoctoral Fellow	University of Pennsylvania, USA
10/2000 – 07/2004	Ph.D. Astrophysics	INAOE, Mexico
	Thesis: “Constraining the History of High-Redshift Dust-Enshrouded Star-Formation with Balloon-Borne and Ground-Based Sub-Millimetre Surveys” Supervisor: D. Hughes	
05/1999 – 08/1999	Undergraduate co-op position	UK Astronomy Technology Centre, UK
	SCUBA image reconstruction	
09/1998 – 12/1998	Undergraduate co-op position	NORTEL Networks, Canada
	Semiconductor laser R&D	
01/1998 – 04/1998	Undergraduate co-op position	Joint Astronomy Centre, USA
	SCUBA calibration	
01/1997 – 05/1997	Undergraduate co-op position	CESL, Canada
	Copper refinery construction	
09/1995 – 04/2000	B.Sc. Honours Physics	University of Victoria, Canada
	Thesis: “Matched field processing uncertainty estimation with Gibbs’ sampling” Supervisor: S. Dosso	

Major collaborations (starting date given)

- 2009 *Herschel* Multi-tiered Extragalactic Survey (HerMES, PI: S. Oliver)
- developing filters to identify point sources in confused fields
 - cross-identifications between submillimetre galaxies and sources at other wavelengths
 - internal consortium paper reviewer
- 2005 SCUBA-2
- leading the development of the iterative map-making software
 - commissioning (including data analysis, calibration, scan strategies)
 - CLS (coordinators: I. Smail, J. Dunlop, M. Halpern, P. van der Werf)
 - SASSy (coordinators: M. Thompson, S. Serjeant, T. Jenness, D. Scott)
 - use of CANFAR (cloud distributed computing environment) for reducing SCUBA-2 data
- 2005 AzTEC 1.1 mm survey of GOODS-N (PI: E. Chapin)
- worked closely with instrument team to develop optimal data reduction strategies
 - led cross-identification work
 - one of the earliest measurements of the 1.1 mm galaxy population redshift distribution
- 2003 SCUBA HALF Degree Extragalactic Survey (SHADES, PI: J. Dunlop)
- helped to write the original proposal
 - observed at the telescope
 - produced maps, source lists, and analyzed source counts
- 2000 Balloon-borne Large-Aperture Submillimeter Telescope (BLAST, PI: M. Devlin)
- core member of the instrument team during Ph.D. and postdoctoral work
 - participated in all field campaigns from 2003–2006 (integration and flights)
 - created simulations of the submm sky and wrote a BLAST scanning simulator
 - led significant portions of the extra-galactic survey design and data analysis effort
 - developed software for star trackers
 - coordinated observing strategy for 2005 and 2006 long-duration science flights
 - served as a consultant for the 2010 BLAST-Pol campaign

Telescope experience

<i>Herschel</i> / SPIRE	high- z surveys
JCMT / SCUBA-2 †	commissioning team & high- z surveys
JCMT / SCUBA *†	high- z surveys
JCMT / AzTEC *	deep map of GOODS-N at 1.1 mm
GBT / K -band †	photo- z guided search for CO emission in submm-selected galaxy
JCMT / HARP	molecular line follow-up of BLAST galactic plane sources
SMA *	follow-up of AzTEC source to identify precise location
CSO / BOLOCAM	1.1 mm map of BLAST galactic plane field
<i>Spitzer</i> / MIPS	deep FIR maps of BLAST extra-galactic field
VLA	molecular line follow-up of BLAST galactic plane sources
Arecibo †	NAIC–NRAO summer school project

(*) indicates telescopes/instruments for which I have submitted successful proposals as PI

(†) indicates telescopes/instruments at which I have observed in person

13. Seminar: “Sub-mm Continuum Maps since SCUBA: New results from AzTEC and BLAST Surveys”, Joint Astronomy Centre, USA (Aug 1, 2008)
12. Conference: Canadian Astronomical Society Meeting 2008 (contributed talk – “BLAST: Antartica 2006 First Extra-galactic Survey Results”), Victoria, Canada (May 20–23, 2008)
11. Conference: Astro Ski (review talk – “10 Years of submillimetre cosmology: what have we learned, and what’s next?”), Mt. Washington, Canada (Feb 19–22, 2008)
10. Conference: Astro Ski (contributed talk – “BLAST: Flights and analysis update”), Mt. Washington, Canada (Feb 19–23, 2007)
9. Conference: 209th Meeting of the AAS (contributed talk – “A Deep AzTEC Map of the GOODS-North Field”), Seattle, USA (January 5–10, 2007)
8. Conference: Multiwavelength Cosmology (contributed talk – “A Bayesian photometric redshift technique for mm-selected galaxies”), Mykonos, Greece (June 17–20, 2003)
7. Conference: Congreso Nacional de Astronomía (contributed talk – “A new photometric redshift technique for mm-selected galaxies”), Mexico City, Mexico (May 21–23, 2003)
6. Workshop: Submillimetre Mapping (invited talk – “The BLAST mapping strategy”), University of British Columbia, Canada (April 25, 2003)
5. Guillermo Haro Workshop: Millimetre Cosmology: From Primordial Fluctuations to Galaxies (local organizing committee), INAOE, Mexico (July 2002)
4. Conference: Galaxy Evolution: Theory and Observations (poster – “Guiding the development of high-redshift extragalactic surveys using detailed simulations of instrumental characteristics and the mm to sub-mm sky”), Cozumel, Mexico (April 8–12, 2002)
3. Experimental Cosmology at millimetre wavelengths (poster – “Simulating the performance of large-format sub-mm focal-plane arrays”), Breuil-Cervinia, Italy (July 9–13, 2001)
2. Summer School: NAIC–NRAO School on Single-Dish Radio Astronomy: Techniques & Applications (poster – “Simulating the Performance of Large-format Sub-mm Focal-plane Arrays”), Arecibo, Puerto Rico (June 10–15, 2001)
1. Conference: New Quests in Stellar Astrophysics: The Link between Stars and Cosmology, Puerto Vallarta (poster – “Searching for an early epoch of star-formation with mm/sub-mm blank field surveys”), Mexico (March 26–30, 2001)

Refereed publications

submitted

3. Gavazzi, R.; Cooray, A.; Conley, A.; Aguirre, J. E.; Amblard, A. (+ 83 co-authors), “Modeling of the HERMES J105751.1+573027 submillimeter source lensed by a dark matter dominated foreground group of galaxies”, *ApJ*, submitted, arXiv:1104.4118 (2011)
2. Viero, Marco P.; Moncelsi, Lorenzo; Buitrago, Fernando; Marsden, Gaelen; Bauer, Amanda. E. (+ 13 co-authors), “Are Compact Massive Galaxies at High-z Really Quiescent? A Mid-Infrared to Submillimeter Study of the GOODS NICMOS Survey Sample”, *ApJL*, submitted, arXiv:1008.4359 (2010)

1. Thompson, M. A.; Serjeant, S.; Jenness, T.; Scott, D.; Ashdown, M. (+ 43 co-authors), "The SCUBA-2 'All-Sky' Survey", PASP, submitted, arXiv:0704.3202 (2007)

accepted / in press

51. Marsden, Gaelen; **Chapin, Edward L.**; Halpern, Mark; Patanchon, Guillaume; Scott, Douglas; Truch, Matthew D. P.; Valiante, Elisabetta; Viero, Marco P.; Wiebe, Donald V., "A Monte Carlo Approach to Evolution of the Far-Infrared Luminosity Function with BLAST", MNRAS, accepted, arXiv:1010.1176 (2011)
50. Mackenzie, Todd; Braglia, Filiberto G.; Gibb, Andy G.; Scott, Douglas; Jenness, Tim (+ 28 co-authors), "A Pilot Study for the SCUBA-2 'All-Sky' Survey", MNRAS, 415, 1950 (2011)
49. Conley, A.; Cooray, A.; Vieira, J. D.; González Solares, E. A.; Kim, S. (+ 86 co-authors), "Discovery of a Multiply Lensed Submillimeter Galaxy in Early HerMES Herschel/SPIRE Data", ApJ, 732, 35 (2011)
48. Braglia, Filiberto G.; Ade, Peter A. R.; Bock, James J.; **Chapin, Edward L.**; Devlin, Mark J. (+ 26 co-authors), "Submillimetre observations of galaxy clusters with BLAST: the star-formation activity in Abell 3112", MNRAS, 412, 1187 (2011)
47. Roy, Arabindo; Ade, Peter A. R.; Bock, James J.; Brunt, Christopher M.; **Chapin, Edward L.** (+ 24 co-authors), "Deconvolution of Images from BLAST 2005: Insight into the K3-50 and IC 5146 Star-Forming Regions", ApJ, 730, 142 (2011)
46. Amblard, Alexandre; Cooray, Asantha; Serra, Paola; Altieri, B.; Arumugam, V. (+ 69 co-authors), "Submillimetre galaxies reside in dark matter haloes with masses greater than 3×10^{11} solar masses", Nature, 470, 510 (2011)
45. **Chapin, Edward L.**; Chapman, Scott C.; Coppin, Kristen E.; Devlin, Mark J.; Dunlop, James S. (+ 15 co-authors), "A joint analysis of BLAST 250–500 μm and LABOCA 870 μm observations in the Extended Chandra Deep Field South", MNRAS, 411, 505 (2011)
44. Penner, Kyle; Pope, Alexandra; **Chapin, Edward L.**; Greve, Thomas R.; Bertoldi, Frank (+ 11 co-authors), "Origins of the extragalactic background at 1mm from a combined analysis of the AzTEC and MAMBO data in GOODS-N", MNRAS, 410, 2749 (2011)
43. Roy, Arabindo; Ade, Peter A. R.; Bock, James J.; **Chapin, Edward L.**; Devlin, Mark J. (+ 24 co-authors), "The Balloon-Borne Large Aperture Submillimeter Telescope (BLAST) 2005: A 10 deg² Survey of Star Formation in Cygnus X", ApJ, 727, 114 (2011)
42. Moncelsi, Lorenzo; Ade, Peter A. R.; **Chapin, Edward L.**; Cortese, Luca; Devlin, Mark J. (+ 14 co-authors), "A panchromatic study of BLAST counterparts: total star-formation rate, morphology, AGN fraction and stellar mass", ApJ, 727, 83 (2011)
41. Levenson, L.; Marsden, G.; Zemcov, M.; Amblard, A.; Blain, A. (+ 28 co-authors), "HerMES: SPIRE Science Demonstration Phase maps", MNRAS, 409, 83 (2010)
40. Hwang, H. S.; Elbaz, D.; Magdis, G.; Daddi, E.; Symeonidis, M. (+ 110 co-authors), "Evolution of dust temperature of galaxies through cosmic time as seen by Herschel", MNRAS, 409, 75 (2010)

39. Roseboom, I. G.; Oliver, S. J.; Kunz, M.; Altieri, B.; Amblard, A. (+ 81 co-authors), “The Herschel Multi-Tiered Extragalactic Survey: source extraction and cross-identifications in confusion-dominated SPIRE images”, *MNRAS*, 409, 48 (2010)
38. Rivera-Ingraham, Alana; Ade, Peter A. R.; Bock, James J.; **Chapin, Edward L.**; Devlin, Mark J. (+ 21 co-authors), “The BLAST View of the Star-forming Region in Aquila ($\ell = 45^\circ$, $b = 0^\circ$)”, *ApJ*, 723, 915 (2010)
37. Valiante, Elisabetta; Ade, Peter; Bock, James; Braglia, Filiberto; **Chapin, Edward** (+ 24 co-authors), “BLAST Observations of the South Ecliptic Pole field: Number Counts and Source Catalogs”, *ApJS*, 191, 222 (2010)
36. Nguyen, H. T.; Schulz, B.; Levenson, L.; Amblard, A.; Arumugam, V. (+ 67 co-authors), “HERMES: The SPIRE confusion limit”, *A&A*, 518, 5 (2010)
35. Scott, Kimberly S.; Stabenau, Hans F.; Braglia, Filiberto G.; Borys, Colin; **Chapin, Edward L.** (+ 6 co-authors), “Spitzer MIPS 24 and 70 micron Imaging near the South Ecliptic Pole: Maps and Source Catalogs”, *ApJS*, 191, 212 (2010)
34. Dunlop, J. S.; Ade, P. A. R.; Bock, J. J.; **Chapin, E. L.**; Cirasuolo, M. (+ 31 co-authors), “The BLAST 250-micron selected galaxy population in GOODS-South”, *MNRAS*, 408, 2022, (2010)
33. Sibthorpe, B.; Ade, P. A. R.; Bock, J. J.; **Chapin, E. L.**; Devlin, M. J. (+ 28 co-authors), “AKARI and BLAST Observations of the Cassiopeia A Supernova Remnant and Surrounding Interstellar Medium”, *ApJ*, 719, 1553 (2010)
32. Olmi, Luca; Araya, Esteban D.; **Chapin, Edward L.**; Gibb, Andrew; Hofner, Peter; Martin, Peter G.; Poventud, Carlos M., “High Angular Resolution Observations of Four Candidate BLAST High-Mass Starless Cores”, *ApJ*, 715, 1132 (2010)
31. Ivison, R. J.; Alexander, David M.; Biggs, Andy D.; Brandt, W. N.; **Chapin, Edward L.** (+ 30 co-authors), “BLAST: the far-infrared/radio correlation in distant galaxies”, *MNRAS*, 402, 245 (2010)
30. Austermann, J. E.; Dunlop, J. S.; Perera, T. A.; Scott, K. S.; Wilson, G. W. (+ 43 co-authors), “AzTEC Half Square Degree Survey of the SHADES Fields – I. Maps, Catalogues, and Source Counts”, *MNRAS*, 401, 160 (2010)
29. Roy, Arabindo; Ade, Peter A. R.; Bock, James J.; **Chapin, Edward L.**; Devlin, Mark J. (+ 22 co-authors), “BLAST05: Power Spectra of Bright Galactic Cirrus at Submillimeter Wavelengths”, *ApJ*, 708, 1611 (2010)
28. Olmi, Luca; Ade, Peter A. R.; Anglés-Alcázar, Daniel; Bock, James J.; **Chapin, Edward L.** (+ 32 co-authors), “The Blast Survey of the Vela Molecular Cloud: Physical Properties of the Dense Cores in Vela-D”, *ApJ*, 707, 1836 (2009)
27. Netterfield, Calvin. B.; Ade, Peter A. R.; Bock, James J.; **Chapin, Edward L.**; Devlin, Mark J. (+ 22 co-authors), “BLAST: The Mass Function, Lifetimes, and Properties of Intermediate Mass Cores from a 50 deg² Submillimeter Galactic Survey in Vela ($\ell \sim 265$)”, *ApJ*, 707, 1834 (2009)
26. Wiebe, Donald V.; Ade, Peter A. R.; Bock, James J.; **Chapin, Edward L.**; Devlin, Mark J. (+ 22 co-authors), “BLAST Observation of Resolved Galaxies: Temperature Profiles and the Effect of Active Galactic Nuclei on FIR to Submillimeter Emission”, *ApJ*, 707, 1809 (2009)

25. Eales, Stephen; **Chapin, Edward L.**; Devlin, Mark J.; Dye, Simon; Halpern, Mark (+ 14 co-authors), "BLAST: the Redshift Survey", *ApJ*, 707, 1779 (2009)
24. Viero, Marco P.; Ade, Peter A. R.; Bock, James J.; **Chapin, Edward L.**; Devlin, Mark J. (+ 24 co-authors), "BLAST: Correlations in the Cosmic Far-Infrared Background at 250, 350, and 500 μm Reveal Clustering of Star-Forming Galaxies", *ApJ*, 707, 1766 (2009)
23. Patanchon, Guillaume; Ade, Peter A. R.; Bock, James J.; **Chapin, Edward L.**; Devlin, Mark J. (+ 22 co-authors), "Submillimeter Number Counts from Statistical Analysis of BLAST Maps", *ApJ*, 707, 1750 (2009)
22. Pascale, Enzo; Ade, Peter A. R.; Bock, James J.; **Chapin, Edward L.**; Devlin, Mark J. (+ 24 co-authors), "BLAST: A Far-Infrared Measurement of the History of Star Formation", *ApJ*, 707, 1740 (2009)
21. Marsden, Gaelen; Ade, Peter A. R.; Bock, James J.; **Chapin, Edward L.**; Devlin, Mark J. (+ 24 co-authors), "BLAST: Resolving the Cosmic Submillimeter Background", *ApJ*, 707, 1729 (2009)
20. Truch, Matthew D. P.; Ade, Peter A. R.; Bock, James J.; **Chapin, Edward L.**; Devlin, Mark J. (+ 23 co-authors), "The Balloon-borne Large Aperture Submillimeter Telescope (BLAST) 2006: Calibration and Flight Performance", *ApJ*, 707, 1723 (2009)
19. **Chapin, Edward L.**; Pope, Alexandra; Scott, Douglas; Aretxaga, Itziar; Austermann, Jason E. (+ 10 co-authors), "An AzTEC 1.1mm survey of the GOODS-N field - II. Multiwavelength identifications and redshift distribution", *MNRAS*, 398, 1793 (2009b)
18. Rex, Marie; Ade, Peter A. R.; Aretxaga, Itziar; Bock, James J.; **Chapin, Edward L.** (+ 24 co-authors), "A Bright Submillimeter Source in the Bullet Cluster (1E0657-56) Field Detected with BLAST", *ApJ*, 703, 348 (2009)
17. Dye, Simon; Ade, Peter A. R.; Bock, James J.; **Chapin, Edward L.**; Devlin, Mark J. (+ 26 co-authors), "Radio and Mid-Infrared Identification of Blast Source Counterparts in the Chandra Deep Field South", *ApJ*, 703, 285 (2009)
16. Valiante, E.; Lutz, D.; Sturm, E.; Genzel, R.; **Chapin, E. L.**, "A Backward Evolution Model for Infrared Surveys: The Role of AGN- and Color- L_{TIR} Distributions", *ApJ*, 701, 181 (2009)
15. Paciga, Gregory; Scott, Douglas; **Chapin, Edward L.**; "Strong lensing of submillimetre galaxies: a tracer of foreground structure?", *MNRAS*, 395, 1153 (2009)
14. Devlin, Mark J.; Ade, Peter A. R.; Aretxaga, Itziar; Bock, James J.; **Chapin, Edward L.** (+ 24 co-authors), "Over half of the far-infrared background light comes from galaxies at $z \geq 1.2$ ", *Nature*, 458, 737 (2009)
13. **Chapin, E. L.**; Hughes, D. H.; Aretxaga, I., "The local far-infrared galaxy colour-luminosity distribution: a reference for BLAST and Herschel/SPIRE submillimetre surveys", *MNRAS*, 393, 653 (2009a)
12. Perera, T. A.; **Chapin, E. L.**; Austermann, J. E.; Scott, K. S.; Wilson, G. W. (+ 15 co-authors), "An AzTEC 1.1mm survey of the GOODS-N field - I. Maps, catalogue and source statistics", *MNRAS*, 391, 1227 (2008)
11. Patanchon, G.; Ade, P. A. R.; Bock, J. J.; **Chapin, E. L.**; Devlin, M. J. (+ 21 co-authors), "SANEPIC: A Map-Making Method for Timestream Data From Large Arrays", *ApJ*, 681, 708 (2008)

10. **Chapin, E. L.**; Ade, P. A. R.; Bock, J. J.; Brunt, C.; Devlin, M. J. (+ 22 co-authors), “The Balloon-borne Large Aperture Submillimeter Telescope (BLAST) 2005: A 4 deg² Galactic Plane Survey in Vulpecula ($\ell = 59^\circ$)”, *ApJ*, 681, 428 (2008)
9. Truch, M. D. P.; Ade, P. A. R.; Bock, J. J.; **Chapin, E. L.**; Devlin, M. J. (+ 21 co-authors), “The Balloon-borne Large Aperture Submillimeter Telescope (BLAST) 2005: Calibration and Targeted Sources”, *ApJ*, 681, 415 (2008)
8. Pascale, E.; Ade, P. A. R.; Bock, J. J.; **Chapin, E. L.**; Chung, J. (+ 25 co-authors), “The Balloon-borne Large Aperture Submillimeter Telescope: BLAST”, *ApJ*, 681, 400 (2008)
7. Younger, J. D.; Dunlop, J. S.; Peck, A. B.; Ivison, R. J.; Biggs, A. D. (+ 12 co-authors), “Clarifying the nature of the brightest submillimetre sources: interferometric imaging of LH850.02”, *MNRAS*, 387, 707 (2008)
6. Aretxaga, I.; Hughes, D. H.; Coppin, K.; Mortier, A. M. J.; Wagg, J. (+ 26 co-authors), “The SCUBA Half Degree Extragalactic Survey - IV. Radio-mm-FIR photometric redshifts”, *MNRAS*, 379, 1571 (2007)
5. Wagg, J.; Hughes, D. H.; Aretxaga, I.; **Chapin, E. L.**; Dunlop, J. S.; Gaztañaga E.; Devlin M., “A broad-band spectroscopic search for CO line emission in HDF850.1: the brightest submillimetre object in the Hubble Deep Field-North”, *MNRAS*, 375, 745 (2007)
4. Coppin, K.; **Chapin, E. L.**; Mortier, A. M. J.; Scott, S. E.; Borys, C. (+ 52 co-authors), “The SCUBA Half-Degree Extragalactic Survey – II. Submillimetre maps, catalogue and number counts”, *MNRAS*, 372, 1621 (2006)
3. Mortier, A. M. J.; Serjeant, S.; Dunlop, J. S.; Scott, S. E.; Ade, P. (+ 73 co-authors), “The SCUBA Half-Degree Extragalactic Survey – I. Survey motivation, design and data processing”, *MNRAS*, 363, 563 (2005)
2. Aretxaga, I.; Hughes, D. H.; **Chapin, E. L.**; Gaztañaga, E.; Dunlop, J. S.; Ivison, R. J., “Breaking the ‘Redshift Deadlock’ – II: The redshift distribution for the submillimetre population of galaxies”, *MNRAS*, 342, 759 (2003)
1. Hughes, D. H.; Aretxaga, I.; **Chapin, E. L.**; Gaztañaga, G.; Dunlop, J. S. (+ 8 co-authors), “Breaking the ‘Redshift Deadlock’ – I: Constraining the star formation history of galaxies with sub-millimetre photometric redshifts”, *MNRAS*, 335, 871 (2002)

Non-refereed publications

22. Jenness, Tim; Berry, David; **Chapin, Ed**; Economou, Frossie; Gibb, Andy; Scott, Douglas, “SCUBA-2 Data Processing”, to be published in ADASS XX, 2011, arXiv:1011.5876
21. Fissel, Laura M.; Ade, Peter A. R.; Angilè, Francesco E.; Benton, Steven J.; **Chapin, Edward L.** (+ 25 co-authors), “The balloon-borne large-aperture submillimeter telescope for polarimetry: BLAST-Pol”, *SPIE*, 7741, 9 (2010)
20. **Chapin, E.**; Gibb, A. G.; Jenness, T.; Berry, D. S.; Scott, D., “SMURF – the Sub-Millimetre User Reduction Facility”, *Starlink User Note 258*, Joint Astronomy Centre (2010)

19. **Chapin, E.**; Dempsey, J.; Jenness, T.; Scott, D.; Thomas H.; Tilanus, R., "The SMURF SCUBA-2 Data Reduction Cookbook", Starlink Cookbook 19, Joint Astronomy Centre (2010)
18. Kackley, Russell; Scott, Douglas; **Chapin, Edward**; Friberg, Per, "JCMT Telescope Control System upgrades for SCUBA-2", SPIE, 7740, 66 (2010)
17. Gaudet, Séverin; Hill, Norman; Armstrong, Patrick; Ball, Nick; Burke, Jeff (+ 22 co-authors), "CANFAR: the Canadian Advanced Network for Astronomical Research" SPIE, 7740, 51 (2010)
16. Holland, W.; MacIntosh, M.; Fairley, A.; Kelly, D.; Montgomery, D. (+ 28 co-authors), "SCUBA-2: a 10,000-pixel submillimeter camera for the James Clerk Maxwell Telescope", in Millimeter and Submillimeter Detectors and Instrumentation for Astronomy III, eds. J. Zmuidzinas et al., SPIE, 6275, 45 (2006)
15. Rex, M.; **Chapin, E.**; Devlin, M. J.; Gundersen, J.; Klein, J.; Pascale, E.; Wiebe, D., "BLAST autonomous daytime star cameras", in Ground-based and Airborne Instrumentation for Astronomy, eds. I. S. McLean & M. Iye, SPIE, 6269, 109 (2006)
14. Ogasaka, Y.; Tueller, J.; Yamashita, K.; Serlemitsos, P.; Shibata, R. (+ 17 co-authors) "First light of a hard-x-ray imaging experiment: the InFOC μ S balloon flight", in Optics for EUV, X-Ray, and Gamma-Ray Astronomy II., eds. O. Citterio & S. L. O'Dell, SPIE, 5900, 217 (2005)
13. Hughes, D. H.; Aretxaga, I.; Wagg, J.; Olmi, L.; **Chapin, E. L.**, "Resolving the FIR-submillimetre extragalactic background from Dome C, Antarctica", in Astrophysics in Antarctica from Concordia Station; Dome C, eds. A. M. Moly & M. Giard, EAS publication series, 14, 75 (2005)
12. Devlin, M. J.; Ade, P. A. R.; Aretxaga, I.; Bock, J. J.; Chung, J. (+ 22 co-authors), "The Balloon-borne Large Aperture Submillimeter Telescope (BLAST)", in Millimeter and Submillimeter Detectors for Astronomy II., eds. J. Zmuidzinas et al., SPIE, 5498, 42 (2004)
11. **Chapin, E. L.**; Hughes, D. H.; Aretxaga, I., "A Bayesian photometric redshift technique for mm-selected galaxies", in Multiwavelength Cosmology, eds. M. Plionis et al., Astrophysics and Space Science Library, 301, 121 (2003)
10. **Chapin, E. L.**; Hughes, D. H.; Aragon, M.; Montaña, A.; Gaztañaga, E.; Plionis, M., "Guiding the development of high-redshift extragalactic surveys using detailed simulations of instrumental characteristics and the mm to sub-mm sky", in Galaxy Evolution: Theory and Observations, eds. Avila-Reese et al., Rev. Mex. A&A Conference Series, 17, 268 (2002)
9. Aretxaga, I.; Hughes, D. H.; Gaztañaga, E.; **Chapin, E. L.**; Dunlop, J. S., "Breaking the "Redshift Deadlock": the redshift distribution of the sub-mm population of galaxies", in Galaxy Evolution: Theory & Observations, eds. Avila-Reese et al., Rev. Mex. A&A Conference Series, 17, 222 (2002)
8. **Chapin, E. L.**; Hughes, D. H.; Kelly, B. D.; Holland, W. S., "Simulating the Performance of Large-format Sub-mm Focal-plane Arrays", in Experimental Cosmology at millimetre wavelengths, eds. de Petris and Gervasi, AIP Conference Proceedings, 616, 357 (2002)
7. Hughes, D. H.; Aretxaga I.; Gaztañaga E.; **Chapin, E. L.**, "Balloon-borne and Ground-Based Sub-mm Cosmological Surveys: Breaking the Redshift Deadlock", in Experimental Cosmology at millimetre wavelengths, eds. de Petris and Gervasi, AIP Conference Proceedings, 616, 322 (2002)

6. Aretxaga, I.; Hughes, D. H.; **Chapin, E.**; Gatañaga, E., "Constraints on the Accuracy of Photometric Redshifts Derived from BLAST and Herschel/SPIRE Sub-mm Surveys", in *Experimental Cosmology at millimetre wavelengths*, eds. de Petris and Gervasi, AIP Conference Proceedings, 616, 354 (2002)
5. **Chapin, E. L.**; Hughes, D. H., "Simulating the Performance of Large-format Sub-mm Focal-plane Arrays", in *NAIC–NRAO School on Single-Dish Radio Astronomy: Techniques & Applications*, eds. Stanimirovic et al., ASP Conference Series, 278, 515 (2002)
4. **Chapin, E. L.**; Hughes, D. H.; Gaztañaga, E.; Aretxaga, I., "Searching for an early epoch of star-formation with mm/sub-mm blank field surveys", in *New Quests in Stellar Astrophysics: The Link Between Stars and Cosmology*, eds. Chávez et al., Astrophysics and Space Science Library, 274, 295 (2001)
3. Gaztañaga, E.; Hughes, D. H.; **Chapin, E.**; Aretxaga, I., "The Creation and Evolution of Galaxies in the Universe: Millimeter Cosmology INAOE", in *New Quests in Stellar Astrophysics: The Link Between Stars and Cosmology*, eds. Chávez et al., Astrophysics and Space Science Library, 274, 297 (2001)
2. Dosso, S. E.; **Chapin, E.**; Wilmut, M. J., "Quantifying data information content in matched-field inversion", *Journal of the Acoustical Society of America*, 107, 2860 (2000)
1. Jenness, T.; Holland, W. S.; **Chapin, E.**; Lightfoot, J. F.; Duncan, W. D., "Dual-beam rastering and deconvolution techniques for SCUBA", in *Astronomical Data Analysis Software and Systems IX*, eds. Manset et al., ASP Conference Series, 216, 559 (2000)

References

Available upon request