

STScI Library Collection Development Guidelines

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I. Introduction

Purpose

This Collection Development plan describes the STScI Library's standards and practices for selecting, purchasing, removing, and sharing materials. This plan is intended to guide STScI Library staff in carrying out the library's collection management efforts. It also informs other STScI staff and the wider astronomy community of STScI Library's goals and procedures.

Audience

The STScI Library serves all STScI staff and a number of external communities:

Internal audiences at STScI

- Business resources
- Human Resources
- Program management
- Grants administration
- Information technology
- Data science and data management
- Engineering and systems engineering
- Flight operations
- Instrumentation and optics
- Research science
- Science policies, infrastructure, and operations
- Public outreach
- Internship and workforce development programs
- Institute committees, working groups, and forums
- STScI Leadership

External communities

- Visitors
- ADS staff
- JHU affiliates, especially Bloomberg Physics and Astronomy students and faculty
- Other astronomy libraries and their research staff, including USNO, Goddard, ESO, JPL, NRAO, Carnegie Institute, and other AURA centers such as D.C. administration and NOIRLab
- More broadly, other libraries in the OCLC sharing network and their constituents

About the Library

STScI serves as a prime contractor to NASA for the purpose of supporting the science operations of the Hubble Space Telescope (HST) and both the science and flight operations of the James Webb Space Telescope (JWST). The institute is also actively engaged in the concept and development of future and proposed missions, including the Nancy Grace Roman Space Telescope (RST, formerly WFIRST) and the Habitable Worlds Observatory (previously LUVOIR).

The STScI Library was founded with the institute in 1982. The initial collection was built from discarded George Washington University and United States Naval Observatory (USNO) texts. Some of these original texts still remain, while others have been superseded or removed. In the present day, the STScI Library provides knowledge services, networks, and resources enabling the science and missions of STScI and the astronomical community. Collection management decisions are intended to directly support the institute’s mission and [strategic goals](#).

II. Resource sharing

Cooperative agreements and sharing networks (ILL)

The STScI Library intends to meet the majority of its users’ information needs through the library’s own collection. In cases where this is not achievable, interlibrary loan provides an important way to connect STScI Library users with materials outside of the library’s own collection. Interlibrary loan services are not intended “to be used as a substitution for the financial support and collection management of an individual library; they augment the provision of library services by the local library.”¹ Interlibrary loan also makes the STScI Library’s unique collections available to information seekers associated with other institutions. The library is committed to carrying out interlibrary loan practices – both lending and borrowing – in accordance with copyright and CONTU guidelines and in fulfillment of the licensing requirements of publishers and providers.

The STScI Library is a member of the worldwide OCLC WorldShare interlibrary loan community. The library is also a part of the PAMNet (Physics-Astronomy-Math (PAM)) Division of the Special Libraries Association (SLA) and the “Astrolib” (Astronomy Libraries Worldwide) community that meets every three-four years for the Library and Information Services in Astronomy (LISA) conference. Resources may be borrowed from or shared with another library through these networks as the situation warrants.

While STScI is part of the Association of Universities for Research in Astronomy (AURA), AURA centers do not manage joint library collections in print and/or electronically. Each institution budgets for and maintains its own collection for local staff, but actively shares when possible in accordance with applicable copyright laws, licensing contracts, and interlibrary loan policies.

Johns Hopkins University Library Access

Historically, the STScI Library and all STScI staff have had on-site access to the JHU Eisenhower Library on the Homewood Campus in Baltimore. All STScI staff are eligible to borrow JHU materials that circulate, and can use nearly all JHU electronic resources such as databases and e-journals **on site** in the Eisenhower Library. One major limitation is that most JHU-licensed ebooks remain unavailable for download due to publisher restrictions. Unlike most e-journals, the majority of JHU ebooks can only be viewed on-site but not copied or downloaded. The STScI Library and STScI staff do not have the rights to use JHU-licensed e-resources off site, unless the staff member is also a JHU student or faculty member.

¹ Quoted from Illinois Heartland Library System Resource Sharing Policy, page 2, viewed March 15, 2024: <https://www.illinoisheartland.org/sites/default/files/members/reciprocal-borrowing/Resource-Sharing-July-2012.pdf>

In late Spring 2024, Johns Hopkins University will begin a two-year renovation of its Eisenhower Library building. During the renovation, STScI's access to the Eisenhower Library's online databases and subscriptions will be disrupted; JHU will be unable to maintain availability of the public access computers during the renovation.

While the renovation will prevent STScI staff from using JHU's subscriptions on-campus, the STScI Library can use other means – beyond JHU --to locate articles outside of its own subscriptions. STScI Library staff can request articles through interlibrary loan, usually with a response time of a few days, or purchase rights to individual articles from the publisher. The STScI Library has had an excellent success rate for getting ahold of full-text articles through these means, often at no cost.

III. Collection Criteria and Evaluation

General philosophy

As a small-scale library, the STScI Library's collection is intended to meet the needs of the institute's users and support the institute's current and projected goals. Broadly speaking, the library collection is not meant to serve as a historic repository but keeps pace with changes in the institute and in the astronomical and related fields. This understanding guides the selection of new materials for acquisition, informs the evaluation of existing and legacy collections for retention or removal, and motivates the transfer of weeded materials to institutions that created the material or that have a funded mandate for preservation (see **Deselection Procedures** and consult "Collaborative Collection Development" by Hargis, Aronson, Novacescu in the LISA IX Proceedings for supporting information).

Scope

Languages

Current acquisitions focus on English language materials. Foreign language print periodicals and retrospective monographs are maintained on a case-by-case basis.

Geographical coverage

American and European publications form the bulk of the collection with the inclusion of significant works from international or regional astronomical societies and observatories, and a limited set of worldwide works on archaeoastronomy.

Chronological coverage

Subject history is covered at a basic study level; emphasis is placed on 20th and 21st century materials. "Core texts" (see **Appendix B**) are retained regardless of the date of publication and if removed are generally replaced by updated editions or similar, modern works.

Current/retrospective coverage

Acquisitions are almost entirely in current releases and newer materials, defined as items published in the past five years, or in earlier works that represent the most current publication available on a given

topic. Examples of earlier works which may still qualify as “current” despite being published 10+ years ago are core industry spacecraft engineering texts for which the earliest available edition is dated in the 1990s or early 2000s. Should a revised edition become available, the STScI Library would purchase it, and likely remove the earlier text. Retrospective works are purchased/retained selectively to replace or maintain core texts, or at the request of research staff if the retrospective work cannot be obtained via interlibrary loan or the library’s networks.

Formats

Electronic versus Print Formats

The STScI Library is actively pursuing an electronic collection in order to meet the needs of its satellite campuses, i.e., the Rotunda, and hybrid workforce. Electronic versions of books and journals are also considered for the purpose of limiting physical shelf space and to allow for better return on investment in cases where a single electronic copy is accessible to two or more individuals simultaneously. This means, whenever available, the STScI Library will first consider digital content, and then consider print if:

- a) The material is unavailable in a digital format;
- b) the individual, class, or research group requesting the material specifically asks for print;
- c) it is determined by library staff that print resources are needed to provide current representation on topical areas where the print collection is out of date;
- d) the title is identified as a core text, as defined under **Appendix B**. These titles are typically purchased in both print and electronic formats when available.
- e) Economically, print is a better use of library funds given the content matter, likely number of library customers who would use the text, and type of usage.

Monographs and eBooks

Typically, the STScI Library purchases single rather than multiple copies of print works. The library may elect to purchase both print and electronic for titles depending on user demand and institute need. Duplicate print and digital copies will be maintained for core texts (see **Appendix B**), for core materials in satellite locations, and for content with significant STScI authorship or subject treatment. Works related to a class, training, or speaker series, or which are expected to remain highly relevant through the next decade, will also be considered for duplicate copies.

With the exception of these cases, available electronic versions will be considered in lieu of, rather than as a supplement to, print access. The decision to purchase an ebook licensed for single, multiple, or unlimited use is based on publisher pricing models/availability, the library’s budget, and user demand across the institute. In general, ebooks are purchased with a three-user license when possible in order to accommodate STScI’s hybrid workforce.

eBooks are purchased through a variety of sources; see **Sources of Acquisition**.

The library does not purchase eBooks via Kindle and similar proprietary services since these are tied to individual accounts and not institute-wide copies. In cases where account specific access is the only

option, the library generally recommends that the staff member's sponsoring office or division make the purchase for the individual.

Textbooks

Selected to provide basic coverage of topical areas where collection occurs at the *basic study* or *advanced study* levels; textbooks will also be selected in order to provide introductory and foundational knowledge in areas where collection occurs at the *research* level (ex: astronomy, physics, and optics).

Oversize Materials

The library does acquire materials in a range of sizes, however, not all materials are easily shelved in the bookcases in the 4th floor library. Some oversize materials exist on shelving in the Library Annex. These materials are represented in the catalog and are findable by patrons. Patrons wishing to consult these materials in the Annex should contact library staff to arrange for use.

Serials (Electronic and Print)

If research using data from HST, JWST, RST, or other future missions is published within a journal, it is eligible for inclusion in the library's subscriptions. Library and MAST staff must have access to fulltext content in order to assess whether articles belong in the mission bibliographies. Research dependent on data from MAST missions, such as Kepler/K2, IUE, TESS, GALEX, etc. must also be accessible to MAST staff for evaluation. Likewise, if STScI staff publish in a given journal, it is eligible for inclusion, though not every journal STScI staff currently publish in or historically contributed to may be included due to budgetary constraints.

Adapting the National Oceanic and Atmospheric Administration (NOAA) Library policy, "electronic journal titles are intended to be actively weeded each year if the price per download rises above the threshold where article purchase on demand becomes more cost-effective." The point at which article purchase on demand becomes cost-effective depends on each title, with cost per download ranging from \$20 to \$100+ for individual purchase. Typically, the STScI Library will not discontinue an electronic journal unless a downward trend in fulltext downloads continues for three or more years. In these cases, feedback from staff is also considered before making a final determination to eliminate a subscription. In most cases, the library retains the rights to the years licensed in the past, but not future years; exact terms depend on publisher licensing.

For journals that are not currently part of our subscriptions, we can usually get access through a number of means. These include interlibrary loan (ILL), on-site access, individual article purchasing, and initiating a new subscription. A journal is appropriate for interlibrary loan only in cases where the library can reasonably expect staff to request five or fewer articles from the most recent five years. This is in order to comply with copyright law and [CONTU guidelines](#) whereby interlibrary loans are not meant to take the place of an institutional subscription. For journals where the library expects to need more than five articles in recent years, on site access via another academic library such as JHU, purchasing rights to articles one-by-one, or a direct subscription may be appropriate. However, note that in late Spring 2024, JHU is planning a renovating the MSEL library, which will directly impact our ability to use materials onsite. Patrons in need of materials they would normally have accessed from JHU should contact library staff directly for alternatives.

The STScI Library may pursue electronic “archive”, i.e., backfile collections for high-use journals in order to remove physical volumes. The library has removed many bound print journals in accordance with the library’s deselection criteria and transfers process.

Newspapers

Newspaper subscriptions are managed and accessed via the Office of Public Outreach (OPO). STScI Library staff can assist users with locating current and historical newspaper articles via the Maryland public library system’s online databases as needed.

Audiovisual material

The STScI Library does not collect CDs and DVDs. While there are some CDs and DVDs currently in the collection, these will eventually make their way to the STScI Institutional Archive.

Most EBSCOhost and ProQuest eBook Central ebook titles are compatible with standard screen readers and low vision software if accessibility is of concern. The library does not purchase audiobooks via Audible and similar commercial services as these are tied to individual accounts and not institute-wide copies.

Software

The STScI Library does not collect software. Refer to the institute’s [GitHub policy](#) (internal access only) if software preservation is required for your work.

Conference proceedings

Proceedings of key conference and society meetings are available primarily through electronic subscription. Print collections of proceedings are maintained for some influential series, such as the recent IAU Proceedings. The library is actively removing most duplicate print and redistributing to less well-resourced astronomy libraries when possible. See **Appendix C** for more details on specific conferences and societies.

Chronological series and publications

Chronological works such as the Astronomical Almanac are made available in print if complete online access is not available, or the online option is less comprehensive than print. See **Appendix C** for more details on specific titles.

Popular works and biographies

Collected at a basic level for the general interest of scientific staff; also meets the needs of non-scientific staff at the Institute seeking to enhance their understanding of STScI research, as well as Office of Public Outreach writing.

Dissertations

The STScI Library maintains a collection of print dissertations written by current or former staff if deposited, but is not actively adding to this collection. There is also a collection of dissertations requested in the past for research purposes. The Library's dissertation holdings will be reduced over time, dependent on online duplication via the publishing university, ADS, and ADS-ingested dissertation repositories such as [AstroGen](#) or the [Astronomy Thesis Collection](#) on Zenodo.

Special collections

Space Telescope Science Institute Publications

Where possible, the STScI Library collects at least two copies of published works that are authored by STScI, to which STScI is a major contributor, or which discuss STScI or its missions significantly in subject matter. This applies to technical, government, and scientific publications. Generally, only one copy of popular works about STScI and/or its missions will be purchased because they remain widely available through the Maryland public library network and the WorldShare interlibrary loan community in the event of loss or damage. Typically, one additional copy of STScI-authored technical, government, or scientific materials – with the exception of standard refereed journal articles – are also deposited with the STScI Institutional Archive digitally and/or in print. Records, papers, photographs, technical reports, non-monographic, electronic publications, and other materials documenting the history of the Institute are maintained separately by the STScI Institutional Archive.

Observatory publications

The STScI Library houses a unique mix of annual reports, newsletters, and observing manuals from observatories across the globe. We are actively working with the observatories and organizations that produced the materials to transition to online access while ensuring unique historical copies are preserved either in ADS, with the content creators, or at STScI if necessary. As of 2010, about 50% of the library's existing observatory materials were indexed by ADS and about 33% was available full-text online. The print footprint of this area will be reduced over time. This area requires the most curation because few copies exist worldwide for many of these publications. In some cases the observatories, societies, and educational institutions who produced the original content are no longer in existence. These "orphaned works" require the most care when making decisions and the greatest level of coordination with ADS, USNO, the IAU, and/or the Library of Congress.

Deselection procedures

Deselection Goals

The STScI Library constantly strives to provide the best possible service to our users. Routine deselection is part of that effort, and has several goals:

- *Providing our patrons a usable, relevant, up-to-date print collection:* we will make our collections more usable by eliminating less useful, outdated and no longer relevant books, and by purchasing in areas that require further collection development.

- *Responsibly managing the library space:* by removing older, less useful books, we will be creating space for new purchases as we grow the collection.
- *Preserving essential knowledge:* when weeding, we will ensure that rare, unique, or special collections will be preserved by either retaining the collections or transferring them to institutions where they would best fit.

Deselection efforts to date

The STScI Library underwent a partial deaccessioning process in 2007-2008, and undertook a second wave of deselection activity from 2017-2021. During the COVID-19 pandemic, library staff had limited access to the library collection. Weeding efforts in 2020-21 were focused on bulk removals processes that maximized the library's space usability by visitors and groups involved with JWST launch and commissioning. Deselection is resuming in 2024, enabled by new staffing roles at the STScI library and guided by a complete deselection project plan.

Deselection Criteria

When evaluating library materials (including monographs, serials, dissertations, special publications and other kinds of materials) for deselection, library staff will use a baseline of objective, numerical criteria and then deepen their assessment based on several additional factors.

Objective criteria

Circulation history and use. Use of comprehensive circulation statistics will take into account limited on-site access in 2020-2022 during the COVID-19 pandemic and JWST launch. During this time, STScI librarians and staff had no or very limited access to print materials, so these years are not factored into decisions on what to retain or remove.

Additional factors

Availability or rarity. The STScI Library considers how many other libraries in the U.S. carry the material in print and where those libraries are located, since the institute cannot access other libraries' electronic content and rarely have access to international print materials. Assessing the quantity of print copies in the US tells staff how likely it is to get a copy via interlibrary loan and indicates if the text may need special consideration due to rarity.

Duplication in physical or digital formats. In many cases where one can reasonably expect content to remain accessible online, trusted digital surrogates will be retained in lieu of print. Staff will also assess whether retaining multiple copies of a print title is appropriate. Intentional duplication of copies or formats will be most likely when a text is significant, locally relevant, or very frequently used.

Significance. Texts that are considered seminal to their respective subdisciplines or having historical significance to our understanding of the development of astronomy may be retained even if they show infrequent use.

Local impact. Any and all materials relating to the history of STScI and its missions (past, current, or proposed) are retained in print and electronic formats when available. In particular, those published solely or jointly by STScI about HST, NGST/JWST, WFIRST/RST, or future decadal flagship missions such as the Habitable Worlds Observatory will remain in print.

Obsolescence and accuracy. For titles that are revised regularly, the STScI Library will make every effort to obtain the most recent edition. Where development in the field have rendered previous scholarship misleading or inaccurate, previous materials will be removed in favor of the most up-to-date content.

Condition. Materials in poor physical condition will be replaced or removed as appropriate.

Relevance. The subject matter will be assessed against the library's topical collecting priorities; see **Appendix A: STScI Library Subject Analysis** for more details.

Diversity. Titles significant in demonstrating, documenting, advocating for or working towards the overall diversity of the collection will be retained in an effort to support the growing diversity in the profession.

Completing the deselection process

After evaluation using these criteria, material may be removed, transferred, or retained within the STScI Library.

Removal and disposal of materials. Deselected materials are recycled or made available to STScI staff to choose from for their own book collections. In the interest of protecting STScI and AURA from any appearance of waste, fraud, and abuse, the library does not take "orders" for withdrawn materials from staff – i.e., the library does not set aside withdrawn materials for staff. Similarly, in order to avoid the appearance of a conflict of interest, the STScI Library does not participate with book resellers. It is important to note the reason the STScI Library is removing the texts is because they were not appropriate for the scope of the collection to begin with, or have since been superseded by newer material or a more widely accessible digital format. This often means other libraries, groups, or researchers are not interested in acquiring materials removed from the STScI Library.

Materials transfers. In order to ensure that rare, unique, or special collections are preserved within the astronomical literature, the STScI Library will contact the publishing institution and offer to repatriate a rare historical astronomy texts (monographs, serials, dissertations, etc.) with the publisher. The library may make similar contacts and offers to the USNO Library, Library of Congress, or other research library with appropriate funding and a vested mission to retain historical texts. Many institutions and society publishers did not maintain complete holdings of their own publications. The STScI Library donates journal and observatory content back to the original society whenever possible. This ensures the organization which has the rights to digitize the material now have the content in order to make it accessible to the wider astronomical community. In most cases, STScI is not legally permitted to digitize content in bulk even if it had the resources and staff available to do so.

Retention. While it is a primary priority to provide STScI Library users with a relevant and up-to-date collection, materials that would not ordinarily fit the library's criteria will be considered for retention in some cases. Specifically, if materials meet a threshold of rarity but staff cannot identify a library or institution willing to receive a transfer, the STScI Library will ensure that the material is preserved in its own collection.

IV. Sources of acquisition

Purchasing channels

Master serials subscription contract

The majority of journals – both print and electronic – are acquired and invoiced through the master subscription management service.

Vendor blanket contract for monographs

The STScI Library acquires most monographs (both print and ebook) through a wholesale book vendor. The vendor provides the option for a selection profile. Staff review pre-selected material on a biweekly to monthly basis to decide if the material warrants purchase in ebook or print format. Under the existing contract, the library has the ability to acquire ebook titles in the ProQuest Ebook Central platform and EBSCO ebook platform. The library can also purchase individual titles from Elsevier, Cambridge University Press, De Gruyter, Oxford University Press, Wiley, and World Scientific via subcontract through the main vendor.

Direct monograph purchases

The STScI Library will purchase books directly from publishers or trade/retail outlets on some occasions, including for time-sensitive requests, when desired content is not available from the blanket vendor, or when content needs exceed available blanket vendor funds.

Direct digital contracts and subscriptions

The STScI Library acquires digital content directly from publishers/vendors to enhance coverage in areas of the collection. Types of direct subscriptions include:

Professional Development/Learning platforms. Example: O'Reilly Learning, LinkedIn Learning

eBook collections and other packaged digital content. Example: Springer, Cambridge STM, IOP-AAS, and SPIE digital ebooks/collections

Databases. Example: ProQuest Dissertation database

Reference material. Example: Britannica Online, Oxford English Dictionary, Chicago Manual of Style

Gifts

Gifts-in-kind are common and welcome at the STScI Library, occurring particularly when divisions are physically relocating within the Institute, or as individual staff members approach retirement. Gifts

originating from outside the Institute are rare, but apply equally under this policy. Adapting the San Jose State University Library policy, all gifts will be subject to the same criteria used for new purchases and should support the missions, research, and technical needs of the Institute. Recent, non-duplicative content supplementing the Library's collection will be favored, in addition to Space Telescope publications not already held in duplicate. The Library assumes ownership of all donations and reserves the right to add donated materials to its collections or to exchange, transfer, or discard them as appropriate. The Library does not accept donated collections which must be kept intact or items offered conditionally, temporarily, or with restrictions (adapted from Wolbach Library). The Library will not provide or arrange for appraisals of the donated items for income tax purposes; however, an acknowledgement letter can be provided to the donor upon request.

Purchase Requests

STScI staff are welcome to suggest items for purchase that would advance their research, technical, or administrative work. Purchase requests are given serious consideration by library staff and in most cases are fulfilled. On rare occasions, library staff may decline a purchase request due to factors such as budgetary restriction, limited appeal across the Institute, format, publication date, or publisher/licensing restrictions. In such cases, library staff will work with the requestor to identify resources falling under the purview/scope of this policy to meet the requestor's needs. The STScI Library may elect to use interlibrary loan, resource sharing networks, or JHU to fulfill requests that do not warrant purchase.

Contact Information

Space Telescope Science Institute (STScI)
STScI Library
3700 San Martin Dr
Baltimore, MD 21218
library@stsci.edu

Jenny Novacescu, Branch Manager – STScI Library & Institutional Archive, jnovacescu@stsci.edu
Hilary Hargis, Deputy Branch Manager – STScI Library, hhargis@stsci.edu
Chris Case, Collection Management Librarian, ccase@stsci.edu
Eden Parks, User Engagement Librarian, eparks@stsci.edu

Other libraries with whom we share this policy are welcome to directly copy or adapt the guidance herein.

Appendix A: STScI Library Subject Analysis

BASIC STUDY – disciplines relevant to our activities at the Institute; foundational topics; we track these disciplines with interest. “...provides resources adequate for imparting and maintaining knowledge about the basic or primary topics of a subject area.” Collections that have historical importance to the institute but are no longer being actively acquired are part of this category, e.g., early gender studies in sciences; archaeoastronomy.

ADVANCED STUDY – subject professionals are active within these disciplines at the Institute. “...can support...specialized inquiries such as those of subject professionals within special libraries.”

RESEARCH – original analysis is being generated around these disciplines at the Institute or these disciplines are utilized in the creation of original analysis. “...required for...independent research...supports doctoral and other original research”

Adapted from:

Anderson, Joanne S. Guide for Written Collection Policy Statements. 2nd ed. Chicago, Ill. : American Library Association, 1996.

HD69.P75	Project management ADVANCED STUDY
HF5549.5	Management topics ADVANCED STUDY
Q130	Women in science BASIC STUDY
Q147-149	Science as a profession ADVANCED STUDY
Q181-183.4	Science education ADVANCED STUDY
Q223	Communication in science ADVANCED STUDY
QA75-76	Programming languages, software, and architecture RESEARCH
QA76.76 .D47	Software development and agile methodologies ADVANCED STUDY
QA276-280	Statistics and data analysis RESEARCH
QB1	Periodical, society, congress, and serial publications in astronomy RESEARCH
QB6	Star catalogs RESEARCH
QB15-34	History of astronomy BASIC STUDY
QB36	Astronomer biographies BASIC STUDY
QB45-45.2	Introductory astronomy textbooks BASIC STUDY
QB51.3	Electronic data processing, image systems in astronomy ADVANCED STUDY
QB65	Atlases and charts RESEARCH
QB81-117	Observatories, astronomical instruments RESEARCH
QB121	Astronomical photography BASIC STUDY

QB351-355	Celestial mechanics RESEARCH
QB461-466	Astrophysics RESEARCH
QB468-480	Non-optical astronomy RESEARCH
QB500.268	Hubble Space Telescope RESEARCH
QB500.269	James Webb Space Telescope RESEARCH
QB500.5-785	Solar system, asteroids, comets RESEARCH
QB790-792	Interstellar matter, cosmic dust, dark energy RESEARCH
QB799-843	Stars, stellar evolution, binary systems, variable stars, stars by type RESEARCH
QB820	Extrasolar planets RESEARCH
QB851-855.9	Clusters and nebulae RESEARCH
QB856-858.8	Galaxies RESEARCH
QB870-903	Stellar spectroscopy RESEARCH
QB980-991	Cosmology RESEARCH
QC15-16	Physicist biographies BASIC STUDY
QC21-24.5	General works, textbooks, popular works in physics BASIC STUDY
QC173-174	Properties of matter, relativity physics, quantum theory and mechanics BASIC STUDY
QC178-179	Theories of gravity, gravitational waves RESEARCH
QC350-467	Optics and light RESEARCH
QC450-467	Spectroscopy RESEARCH
QC485-766	Radiation, electricity and magnetism, plasma physics BASIC STUDY
QC770-798	Nuclear and particle physics, atomic energy, radioactivity BASIC STUDY
QH325-326	Origin of life and exobiology BASIC STUDY
T11	Technical writing ADVANCED STUDY
TA168	Systems engineering ADVANCED STUDY
TA330-347	Engineering mathematics and analysis ADVANCED STUDY
TA1501-1820	Applied optics and photonics RESEARCH
TA1630-1650	Optical data processing RESEARCH
TK5102.5 & .9	Signal processing RESEARCH
TK7869-7872	Electronics apparatus and materials RESEARCH
TL787-799	Astronautics and space travel BASIC STUDY
TL789.85	Astronaut biographies BASIC STUDY

TL1050-1060 Astrodynamics, flight mechanics, orbital mechanics **ADVANCED STUDY**
 TL1065-1080 Space navigation **ADVANCED STUDY**

Appendix B: Core Texts at the STScI Library

The following are intended to be retained and updated if new additions become available:

Allen's astrophysical quantities / Arthur C. Cox, editor.

Published: New York : AIP Press : Springer, 2000.

Call Number: QB461 .A564 2000

Astrophysical techniques / C.R. Kitchin.

Author: Kitchin, C. R. (Christopher R.)

Published: Boca Raton : CRC Press, c2014.

Call Number: QB461 .K57 2014

The cosmic perspective / Jeffrey Bennett (University of Colorado at Boulder), Megan Donahue (Michigan State University), Nicholas Schneider (University of Colorado at Boulder), Mark Voit (Michigan State University)

Author: Bennett, Jeffrey O., author.

Published: Boston : Pearson, [2017]

Call Number: QB43.3 .B46 2017

Data reduction and error analysis for the physical sciences / Philip R. Bevington, D. Keith Robinson.

Author: Bevington, Philip R., 1933-

Published: Boston : McGraw-Hill, c2003.

Call Number: QA278 .B48 2003

Fourier analysis and imaging / Ronald Bracewell.

Author: Bracewell, Ronald Newbold, 1921-

Published: New York : Kluwer Academic/Plenum Publishers, c2003.

Call Number: TA1637.5 .B73 2003

The Fourier transform and its applications / Ronald N. Bracewell.

Author: Bracewell, Ronald Newbold, 1921-

Published: Boston : McGraw Hill, c2000.

Call Number: QA403.5 .B7 2000

Introduction to astronomical spectroscopy / Immo Appenzeller.

Author: Appenzeller, I. (Immo), 1940-

Published: New York : Cambridge University Press, 2013.

Call Number: QB465 .A67 2013

Introduction to Fourier optics, 4th edition / Joseph W. Goodman.

Author: Goodman, Joseph W.

Published: New York: W.H. Freeman, 2017

Call Number: QC355 .G65 2017

Numerical recipes : the art of scientific computing / William H. Press ... [et al.].

Published: Cambridge, UK ; New York : Cambridge University Press, 2007.

Call Number: QA297 .N866 2007

Observational astrophysics / Pierre Léna [and others] ; in collaboration with Laurent Mugnier ; translated by S. Lyle.

Author: Léna, Pierre, 1937-

Published: Heidelberg ; New York : Springer, ©2012.

Call Number: QB461 .L4613 2012

The physics of astrophysics / Frank H. Shu.

Author: Shu, Frank H.

Published: Mill Valley, Calif. : University Science Books, c1991-

Call Number: QB461 .S58 1991 v. 1-2

Practical Statistics for Astronomers / J. V. Wall, C. R. Jenkins.

Author: Wall, J. V.

Published: Cambridge [England] ; New York : Cambridge University Press, 2012.

Call Number: QB149 .W35 2012

Principles of optics : electromagnetic theory of propagation, interference and diffraction of light / Max Born and Emil Wolf ; with contributions by A.B. Bhatia ... [et al.].

Author: Born, Max, 1882-1970.

Published: Cambridge [England] ; New York : Cambridge University Press, 1999.

Call Number: QC355.2 .B67 1999

Quantitative methods of data analysis for the physical sciences and engineering / Douglas G. Martinson

Author: Martinson, Douglas G., 1953-

Publisher: Cambridge, UK : Cambridge University Press, 2018.

Call Number: QA276 .M378 2018

Scientific style and format : the CSE manual for authors, editors, and publishers / Style Manual Committee Council of Science Editors.

Published: Chicago ; London : The University of Chicago Press, [2014]

Call Number: T11 .S386 2014

Secrets of the hoary deep : a personal history of modern astronomy / Riccardo Giacconi.

Author: Giacconi, Riccardo.

Published: Baltimore : Johns Hopkins University Press, 2008.

Call Number: QB472 .G53 2008

Space mission engineering: the new SMAD / James Richard Wertz, David F. Everett, Jeffrey John Puschell

Author: Wertz, James Richard

Published: Hawthorne, CA : Microcosm Press, 2011

Call Number: TL790 .S732 2011

The space telescope : a study of NASA, science, technology, and politics / Robert W. Smith with contributions by Paul A. Hanle, Robert H. Kargon, Joseph N. Tatarewicz.

Author: Smith, Robert W. (Robert William), 1952-

Published: Cambridge [England] ; New York : Cambridge University Press, 1993.

Call Number: QB500.267 .S55 1993

The space telescope : the interaction of science, technology, and politics / Robert W. Smith with contributions by Paul A. Hanle, Robert H. Kargon, Joseph N. Tatarewicz.

Author: Smith, Robert W. (Robert William), 1952-

Published: Cambridge [England] ; New York : Cambridge University Press, 1989.

Call Number: QB500.267 .S55 1989

Stellar spectral classification / edited by Richard O. Gray and Christopher J. Corbally ; with contributions by Adam Burgasser ... [et al.].

Published: Princeton, N.J. ; Woodstock : Princeton University Press, 2009.

Call Number: QB881 .G73 2009

Systems engineering for astronomical telescopes / Paul A. Lightsey, Jonathan W. Arenberg.

Author: Lightsey, Paul A., 1944- author.

Published: Bellingham, Washington : SPIE, [2018]

Call Number: TA168 .L54 2018

Systems engineering handbook : a guide for system life cycle processes and activities / prepared by International Council on Systems Engineering (INCOSE) ; compiled and edited by, David D. Walden, ESE

Published: Hoboken, New Jersey : Wiley, [2015]

Call Number: TA168 .S87 2015

The universe in a mirror : the saga of the Hubble Telescope and the visionaries who built it / Robert Zimmerman.

Author: Zimmerman, Robert, 1953-

Published: Princeton, N.J. ; Woodstock : Princeton University Press, 2008.

Call Number: QB500.268 .Z56 2008

The following topics are to be represented in any core STScI Library collection, but the particular titles best representing those topics may change over time:

Project management

Agile practice guide.

Published: Newton Square, Pennsylvania : Project Management Institute, Inc., [2017]

Call Number: HD69.P75 A36 2017

A guide to the project management body of knowledge (PMBOK guide) / [Project Management Institute].

Published: Newtown Square, Pennsylvania : Project Management Institute, Inc., [2017]

Call Number: HD69.P75 G845 2017

PMP exam prep : accelerated learning to pass the Project Management Professional (PMP) exam / by Rita Mulcahy, PMP, [and others].

Author: Mulcahy, Rita, author.

Published: Minnetonka, Minnesota : RMC Publications, Inc., [2018]

Call Number: HD69.P75 M85 2018

Bayesian methods

Bayesian ideas and data analysis : an introduction for scientists and statisticians / Ronald Christensen ... [et al.].

Published: Boca Raton, FL : CRC Press, c2011.

Call Number: QA279.5 .B3868 2011

Bayesian models for astrophysical data using R, JAGS, Python, and Stan / Joseph M. Hilbe, Rafael S. De Souza, Emille E.O. Ishida.

Author: Hilbe, Joseph M., 1944- author.

Published: Cambridge, United Kingdom ; New York, NY : Cambridge University Press, 2017.

Call Number: QB149 .H55 2017

Business, technical, and scientific writing

The essentials of technical communication / Elizabeth Tebeaux, Texas A&M University, Sam Dragga, Texas Tech University.

Author: Tebeaux, Elizabeth, author.

Published: New York, NY : Oxford University Press, [2018]

Call Number: T11 .T43 2018

The scientist's guide to writing : how to write more easily and effectively throughout your scientific career / Stephen B. Heard.

Author: Heard, Stephen B., author.

Published: Princeton, New Jersey : Princeton University Press, [2016]

Call Number: T11 .H43 2016

Writing in engineering : a brief guide / Robert Irish, University of Toronto.

Author: Irish, Robert.

Published: New York ; Oxford : Oxford University Press, [2015]

Call Number: T11 .I75 2015

Python or other preeminent programming languages

A primer on scientific programming with Python / by Hans Petter Langtangen.

Author: Langtangen, Hans Petter, 1962- author.

Published: Heidelberg : Springer, [2016]

Call Number: QA76.73.P98 L35 2016

Statistics, data mining, and machine learning in astronomy : a practical Python guide for the analysis of survey data / Željko Ivezić, Andrew J. Connolly, Jacob T. VanderPlas, Alexander Gray.

Author: Ivezić, Željko, author.

Published: Princeton : Princeton University Press, [2020]

Call Number: QB51.3.E43 S8 2020

Appendix C: Historical Collection Information

Conference Proceedings

- ASP (Astronomical Society of the Pacific, i.e., PASP): most print volumes have been removed unless the conference was hosted at STScI, or deals substantively with STScI and MAST missions.
- EAS (European Astronomical Society): 2001 – 2016, complete series online; little to no print duplication.
- IAU (International Astronomical Union): 1928 – current online, with gaps in coverage. For ease of access, print volumes that cover gaps in online coverage as well as the most recent 5 years in print are held in the main stacks. Earlier volumes are accessible to all users in the library Annex.
- SPIE (Proceedings of the SPIE): The entire SPIE Digital Library is accessible to STScI staff, including Proceedings of the SPIE, SPIE ebooks, and other ad hoc conference proceedings. Little to no print duplication.
- AIP (American Institute of Physics) formerly available 1970 – current; online access ceased in 2020 since subscription was rarely used over a period of 5 years. Few duplicate print. Individual AIP proceedings may be requested via interlibrary loan or article-by-article purchase.

Chronological series and publications

- Annual Reviews – v. 1 to current; will continue to be held in print for ease of use even though online duplication exists; conservative approach at the request of STScI research staff. The most recent 5 years in print are held in the main stacks with earlier volumes accessible to all users in the library Annex.
- Apparent Places of Fundamental Stars – this has mostly historic value for researchers interested in the previously measured location of objects. The most recent 5 years in print are held in the main stacks with earlier volumes accessible to all users in the library Annex. Print may be removed in future if a quorum of institutions with historical collections can make content available as needed to STScI staff.
- Astronomical Almanac – will continue to be held in print for the entire run; no decent online equivalent though widely available at many institutions including USNO which publishes it. Most applicable to solar system objects. The most recent 5 years in print are held in the main stacks with earlier volumes accessible to all users in the library Annex.

Reference Collection

For ease of access, print books at the STScI Library are almost exclusively circulating. The Library's small legacy Reference collection was integrated into the circulating stacks in 2018. A truly minimal number of print materials had remained non-circulating, e.g., Allen's *Astrophysical Quantities*. These works are appropriate for brief consultation and can be found interfiled with the main print book collection. Typically, at least one print circulating copy and/or an electronic copy of each reference title is available. Note, in Spring of 2024, the remaining Reference items were made circulating.

Works using copyrighted STScI images (Hubble Etc., Defunct)

Officially, any publication that used an STScI-copyrighted image should have been deposited with STScI. This was a policy determined by the Office of Public Outreach (OPO) and the STScI Library in the 1990s before the advent of online publishing. OPO and the STScI Library did not actively pursue materials using STScI-copyrighted images, but depended on the author and publisher to adhere to the policy. Adherence to the policy was minimal and the “Hubble Etc.” collection represented only a small footprint of works using copyrighted STScI images. Works that were sent for deposit which fit our general collection criteria were cataloged and put into circulation with the rest of the collection. Popular, esoteric, fiction, humorous, and other works that did not fit the overall selection criteria were not cataloged but were available to browse in the library. This collection was removed entirely in 2021.