#### Lars Holm Nielsen

CERN/IT

https://orcid.org/0000-0001-8135-3489



Research. Shared.





















### Lost USB stick





































# Archiving

# Crediting











# Publish or berish berish











20%

store data in a digital archive quality and archive











## 1.000.000(.000) GBs

Long tail of science













### Hard

No Credit











### Hard

Data journals

## No Credit



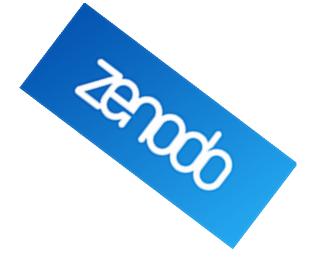












# No Credit











## First step:

## Capture content Cabture content







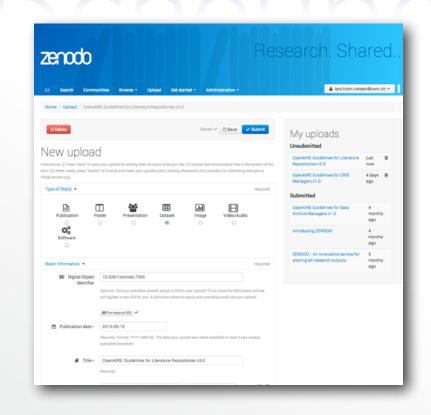




## Upload



## Describe



### Publish









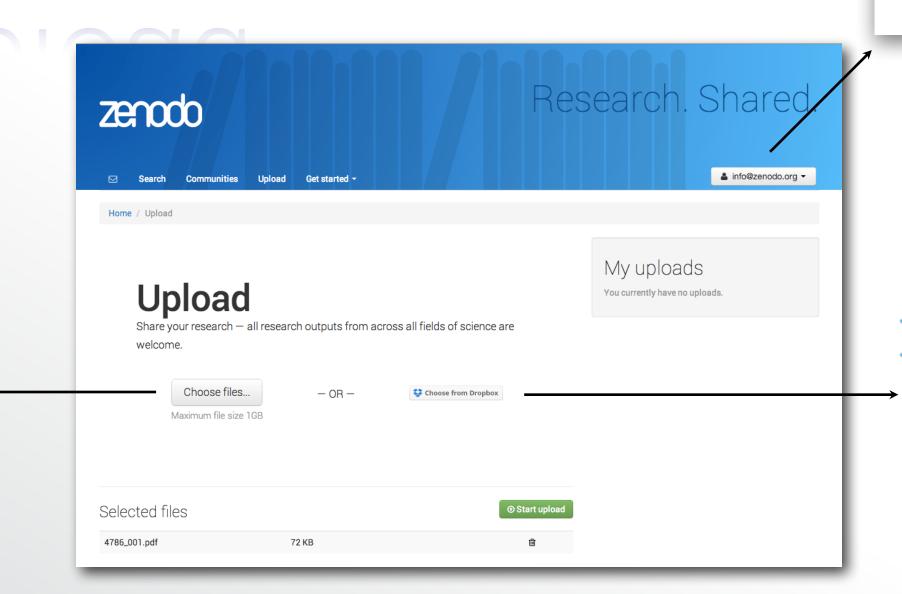




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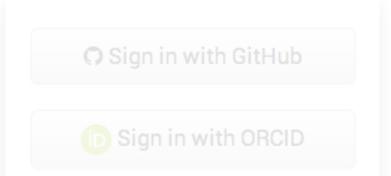
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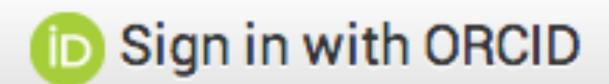
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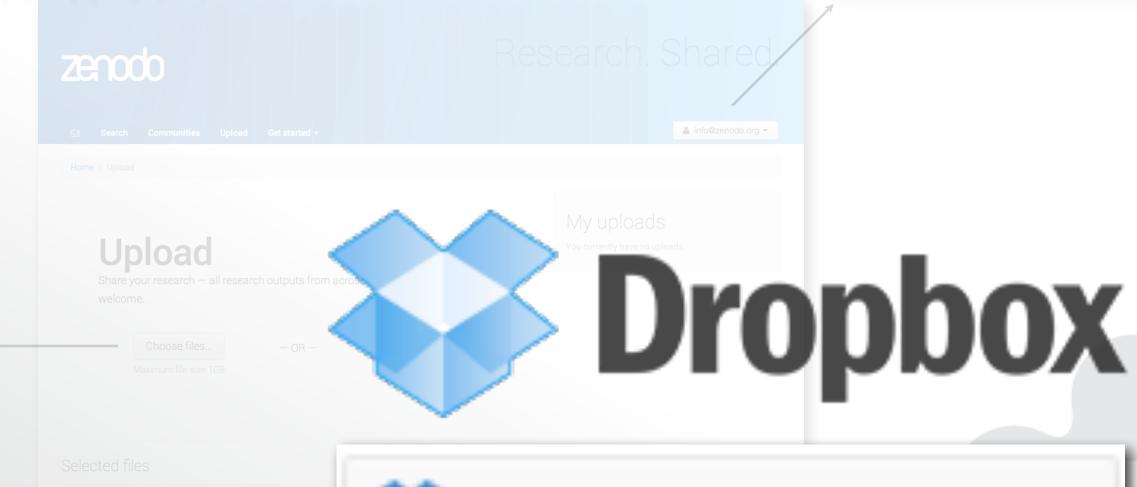




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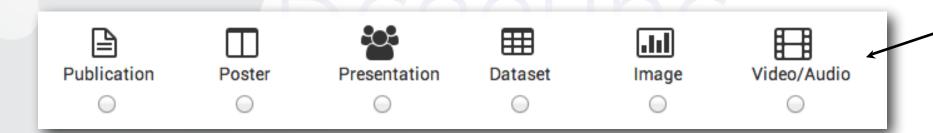


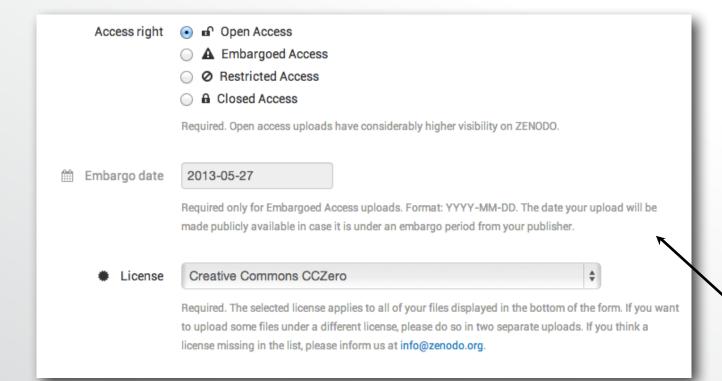






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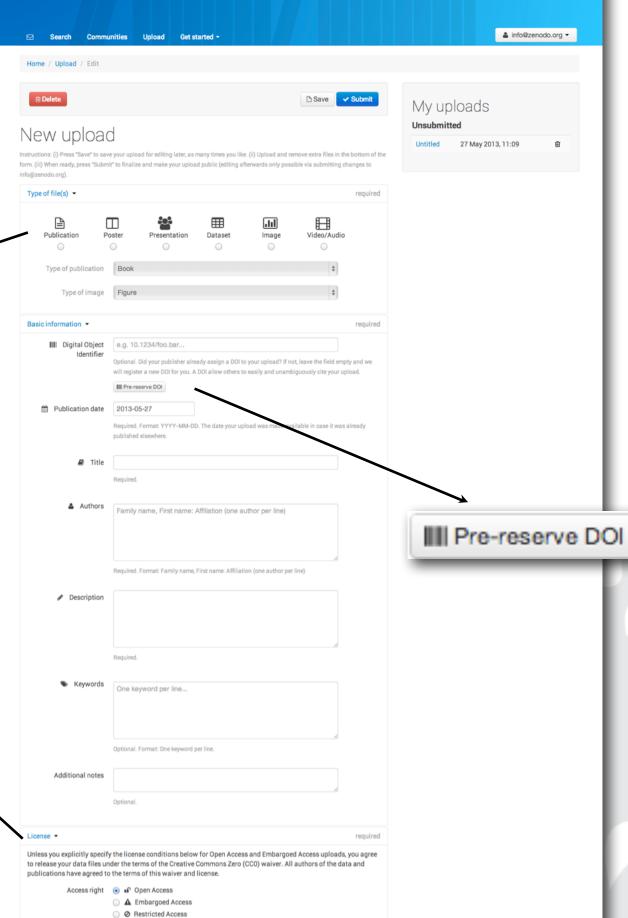






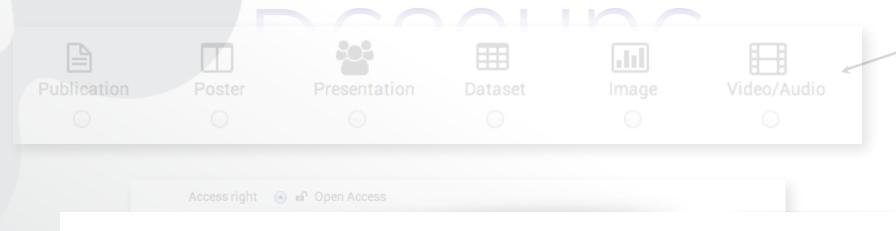
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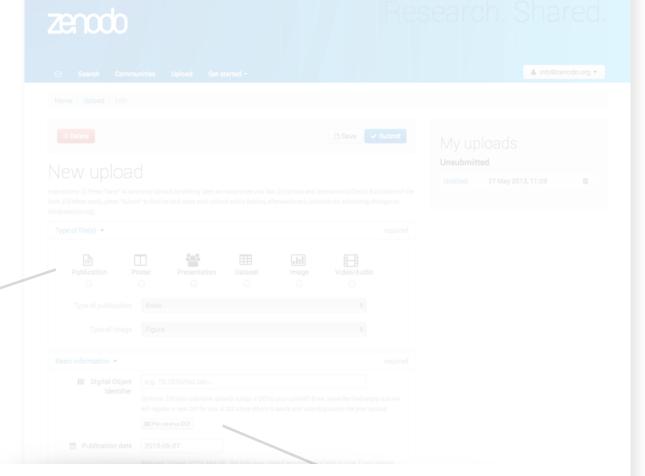
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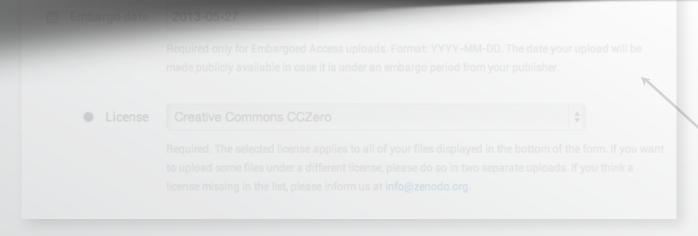


### Describe





### Creators (Year). Title. Publisher. Identifier.













## Publish



#### **Article Level Metrics**

#### DOI:

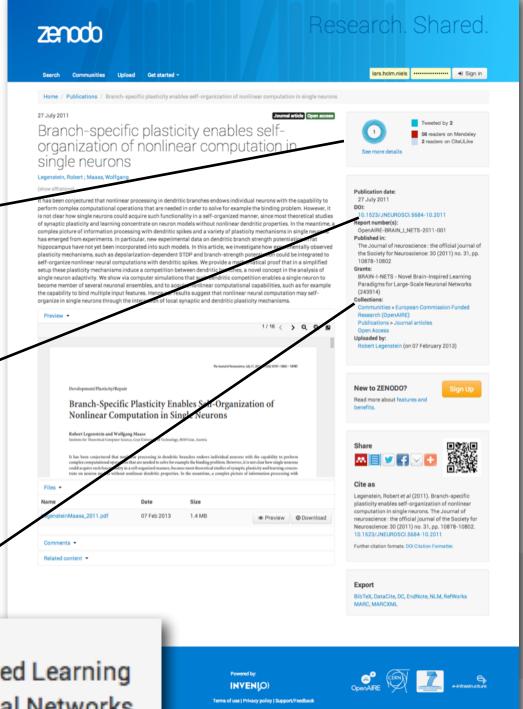
10.5281/zenodo.6785

Citeable. Discoverable.

#### **Grants:**

BRAIN-I-NETS - Novel Brain-Inspired Learning Paradigms for Large-Scale Neuronal Networks (243914)

Link with funding information















The famous auxiliary ship Great Beltain, of 3343 tons, at Circular Quay, Sydney, 1866. She was the first iron screw steamship in the world and was designed to carry over 600 passengers. On the England-Australia run from 1852 to 1876, she probably brought more settlers to Australia than any other ship. Photo from the author's collective. (See further illustration on page 214).

AASE MAERSK. Danish merch ship/tanker, under British wartime control 1941-43 \* Official? log, 25.7.41- 6.9.43, ex Newcastle \*AA, Syd, SP 458

ABBERTON, ship, 451t, John CATT: London, 15.4 - St Jago - Sydney, 20.8; 1839 - Diary by John Cane Riddell \* LTL, Melbourne, MS 10766, 1850 - Same, JAMES: London-Plym - Adelaide, 29.10, with migrants; - Diary, July - Nov. 1850, by Sarah? Ward \* MLSA, D 6291(L).

ABBEY BOLME, barque, of Liv, W'm BRYCE: Workington,1.10 - Adetaide, 1880-81 21.1- Honfleur,6.8 - Crew List, etc \* ML, Mss 2344, Box Y4491 1883-84 same?, John H RICH: Lon / E I Docks,1.10 - Launceston, c.3.1 - Account of voyage in Launceston newspaper(s), c. 4.1.1884.

ABDALLA: ship? Lon-Plymouth-Sydney, 21.2; «Daily log by BO Rossbach: 1854-55 \* Restricted access, HRR1014, c/o Hist. Records Office, NL, Canb.

ABEL GOWER, emigrant barque, 313t, William EDEY: London, 25.7 - Port 1852 Phillip, 9.11 - Passenger's diary \* NMM, Greenwich, JOD / 90.

ABEL TASMAN.1933-36, SS? Voyages to Syd. + 6 Off. logs \*AA, Syd, SP2 \*1958-63 MV. +15 Official logs \* Australian Archives, Sydney, SP 989.

ABEMAMA,1920, sch. 395t, James Patrick Ltd. • 2 Official logs \*AA, Syd./
1923 • Official log, Aust. Arch, West Aust, \* PP207/2. /SP 2.
1924-25 • Official logs, Hbr & Light Dept records, WA Arch \*AN16/6.

ABEONA. sch/bgn, of BTnx:100t, J.BL.ACKBOOURNE: HTn.13.12- Adelaide, & return, Jan1841, via Port Lincoln, with Lady Franklin, pass:

Notes on S. Aust visit \* NL, MS 1148; \* Diaries in SPRI, Camb, with extracts pub. in \* The Life, Diaries & Correspondence of Lady lane Franklin, 1792-1873, ed by W. Rawnsley (Lon1923).

ABERCROMBIE ROBINSON, ex El Co ship,14l6t. Lon, Feb - Calcutta- Sing1835 - Whampoa,& return to Lon, Jun'36. /Anchorage,Bayfilil,Dover.
-1836 + Account of career of Jn Miller, Ch.Off. MS, c/o RS Craig,The/
same,as troopship, of Duncan Dunbar, bound for India. Driven
ashore at Table Bay, 28.8.1842, in same gale as Waterloo, q.v.

ABERCROMBY,trading sch.,143t, J.BUTCHER: Swan R.12.2- Mauritius (Mar)

1838 - Journal by Thos Mellersh, pass ' orig in Battye Library,WA

+ AJCP M reel 466, + ML, reel FM4/2182. • See also Majestic.

1845 ditto, Wm PRETTY/PETLEY - Account of wreck in hurricane

off Ile Bourbon (Reunion), 27.6 \* in PPE, 2.8 • SMH, 30.8.45.

1863-64 1882?

1887

ship.1200t, COLE: Boston, USA - Melb, and on to Lyttelton?
- Journal, 16.9 - 28.1, by C. Davie \* ATL 0917, 1863-64 P.
SS, 3684t?, Charles MATHESON: Voyage, London to Aust?;
\* Genealogist, Dec.1984: - the RHSV Journal, Dec.1984, pp
55-56; - Clippers for the Record, by M. Matheson, (1984),
same? SS. Voyage to or from Aust? \* ML, Syd, MSS 3882.

1





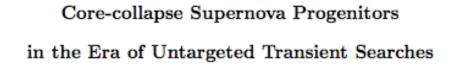


The function smallings stilp Great Relation of JSGI trees, at Circuite Quay. System, 1865i. She was first from acrees attenuability in the world and was designed to carry. Systems Got the England-Amstrada run from 1853 to 1875, ale probably brought some settlers to Australia than any other ship. Photo from the author's collection, She further illustration on page 23-6.

863-64 - Journal, 16.9 - 28.1, by C. Bayee \* NEL 0912, 1863-643, SS, 368412, Charles MATHESON: Voyage London to Aust? \* Genealogist, Dec.1984. - the RilsY Journal Sec.1984. pp 55-56: \* Chegera for the Record, by M. Matheson, 1984. asme? SS, Voyage to or from Aust? \* ML, Syd, MSS 3882.







A dissertation presented

by

Nathan Edward Sanders

to

The Department of Astronomy

in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

in the subject of

Astronomy and Astrophysics

Harvard University

Cambridge, Massachusetts

April 2014















- CO2 118-300nm log.JPG
- CO2 195,295K 118-200nm lin.JPG
- CO2 195,295K 118-200nm log.JPG

- CO2 evaluation 0.125-201.6nm log.JPG
- CO2 evaluation 0.125-62.4nm lin.JPG
- CO2 evaluation 116.5-163.4nm lin.JPG
- CO2 evaluation 163.4-201.6nm lin.JPG

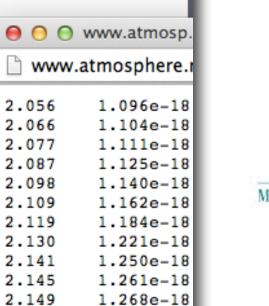
#### CO2 118-300nm lin.JPG

- CO2 2.056-155nm lin.JPG
- CO2 2.056-155nm log.JPG
- CO2 2.056-2.450nm lin.JPG
- CO2 2.056-69nm lin.JPG
- CO2 3.666-4.457nm lin.JPG
- CO2 60-118 nm lin.JPG

- CO2 evaluation 62.4-118.7nm lin.JPG

#### Data files for carbon dioxide:

Structure	Author(Year)	Temperature	Wavelength range	Information
CO2	Barrus(1979)	298K	2.056-2.450nm	Details   Data
CO2	Bennett(1971)	295K	58.4nm	Details   Data
CO2	BrionTan(1978)	298K	20.7-58.5nm(e,e)	Details   Data
CO2	CairnsSamson(1965)	298K	30-104nm	Details   Data
CO2	Chan(1993)	298K	6.1-145nm(e,e)	Details   Data
CO2	Cook(1966)	295K	60-99.5nm	Details   Data
CO2	Heimerl(1970)	295K	165-182nm	Details   Data
CO2	Hitchcock(1980)	298K	15.5-155nm(e,e)	Details   Data
CO2	HuestisBerkowitz(2010)	300K	0.1254-201.6nm(evaluation)	Details   Data
CO2	Ityaksov(2008)	298K	197.70-201.58nm(corr)	Details   Data
CO2	Ityaksov(2008)	298K	197.70-270.15nm(meas)	Details   Data
CO2	Ityaksov(2008)	298K	197.70-270.15nm(meas)	Details   Data
CO2	Ityaksov(2008)	298K	197.70-201.58nm(corr)	Details   Data
CO2	HuestisBerkowitz(2010)	300K	0.1254-201.6nm(evaluation)	Details   Data



1.272e-18

1.275e-18

1.275e-18

2.056

2.066

2.077

2.087

2.098

2.109

2.119

2.130

2.141

2.145

2.149

2.153

2.156

2.160





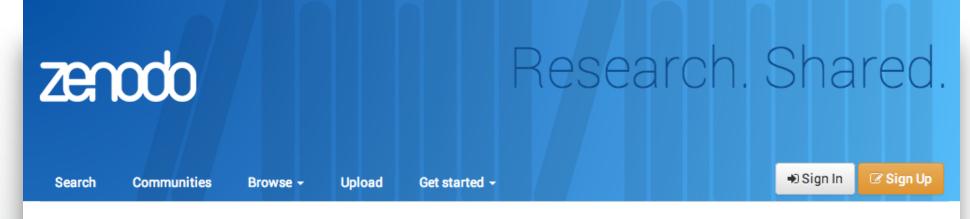








### F1000Research



Software Open access

MethylExtract release 1.5

Barturen, Guillermo ; Rueda, Antonio ; Oliver, José L ; Hackenberg, Michael

(show affliations)

16 February 2014

MethylExtract main script (MethylExtract\_version.pl)

The main script of MethylExtract performs methylation profiling and SNV (Single Nucleotide Variant) calling from previously aligned bisulfite-treated reads. The script includes multiple quality-control related features. to.

Estimation of the bisulfite conversion rate (*MethylExtractBSCR\_version.pl*) The script calculates the bisulfite conversion rate from an unmethylated genome. In the case of plants, the script can be run with the reads aligned to the chloroplast genome, while in other organisms an unmethylated genome (as the phage lambda) must be added to the experimental setup.

Statistical assessment of the bisulfite conversion rate(MethylExtractBSPvalue\_version.pl)

The script calculates the error probability (p-value) for each position using the binomial distribution aixon on error interval for the methylation levels. In addition the Benjamini Hoophora

rate(MethylExtractBSPvalue\_version.pl)

The script calculates the error probability (p-value) for each position using the binomial

Statistical assessment of the bisulfite conversion

European Commission

culates the bisulfite conversion rate from an unmethylated genome. In the case of plants, the ipt can be run with the reads aligned to the chloroplast genome, while in other organisms an methylated genome (as the phage lambda) must be added to the experimental setup. F1000Research

Publication date: 16 February 2014

DOI

DOI 10.5281/zenodo.8351

Related publications and datasets: Cited by:

10.12688/f1000research.2-217.v1

Collections:

Communities > F1000Research

Software

Open Access

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oftware

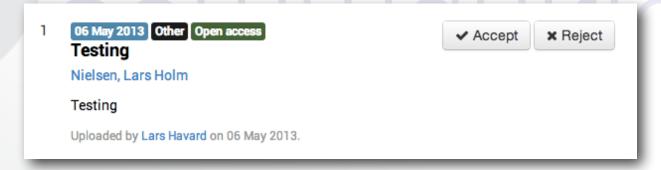
Communities > F1000Research

10.12688/f1000res<mark>>arch.2-217.v</mark>1





### Communities



### Accept/reject uploads

#### Harvesting API:

OAI-PMH Interface

### **Export**

Want your upload to appear in this community?

Upload

### **Direct community upload**

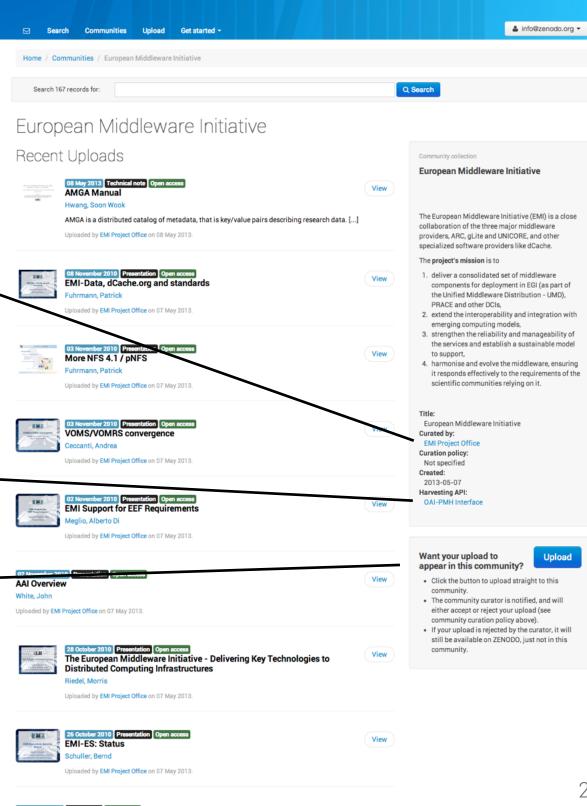




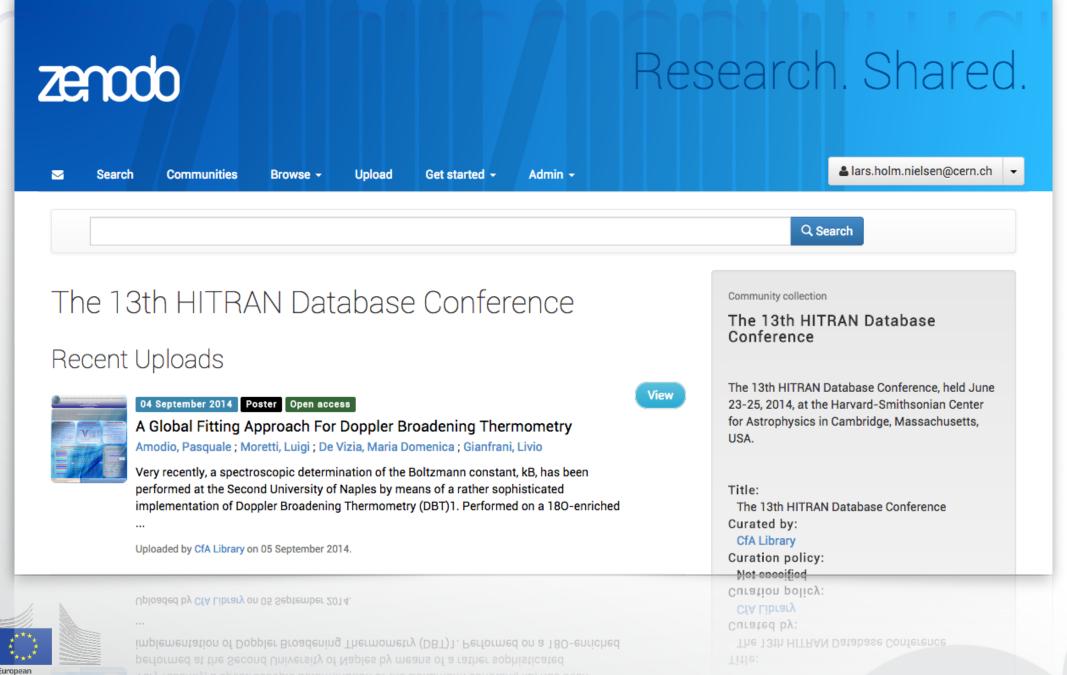




#### Research. Shared.



## Conference Community







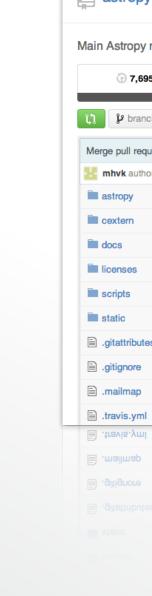


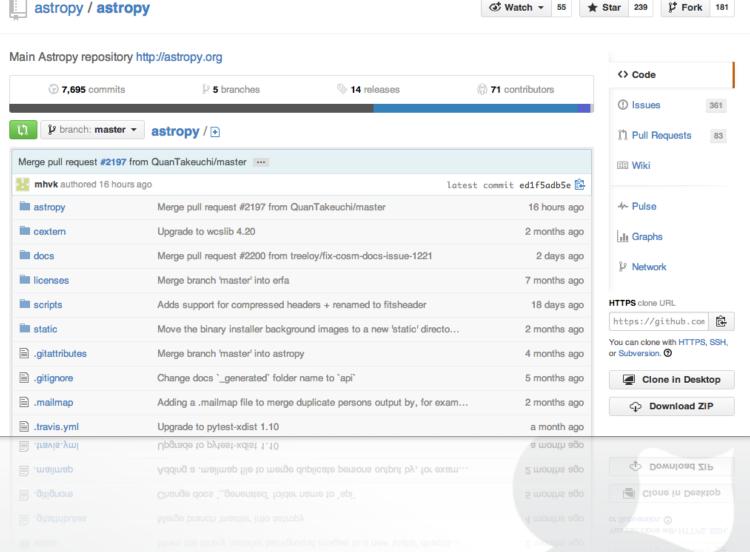




A&A 558, A33 (2013) DOI: 10.1051/0004-6361/201322068 Astropy: A community Python package for astronomy The Astropy Collaboration, Thomas P. Robitaille<sup>1</sup>, Erik J. Tollerud<sup>2,3</sup>, Perry Greenfield<sup>4</sup>, Michael Droettboom<sup>4</sup>, Erik Bray<sup>4</sup>, Tom Aldcroft<sup>5</sup>, Matt Davis<sup>4</sup>, Adam Ginsburg<sup>6</sup>, Adrian M. Price-Whelan<sup>7</sup>, Wolfgang E. Kerzendorf<sup>8</sup>, Alexander Conley<sup>6</sup>, Neil Crighton<sup>1</sup>, Kyle Barbary<sup>9</sup>, Demitri Muna<sup>10</sup>, Henry Ferguson<sup>4</sup>, Frédéric Grollier<sup>12</sup> Madhura M. Parikh<sup>11</sup>, Prasanth H. Nair<sup>12</sup>, Hans M. Günther<sup>5</sup>, Christoph Deil<sup>13</sup>, Julien Woillez<sup>14</sup>, Simon Conseil<sup>15</sup> Roban Kramer<sup>16</sup>, James E. H. Turner<sup>17</sup>, Leo Singer<sup>18</sup>, Ryan Fox<sup>12</sup>, Benjamin A. Weaver<sup>19</sup>, Victor Zabalza<sup>13</sup>, Zachary I. Edwards<sup>20</sup>, K. Azalee Bostroem<sup>4</sup>, D. J. Burke<sup>5</sup>, Andrew R. Casey<sup>21</sup>, Steven M. Crawford<sup>22</sup>, Nadia Dencheva<sup>4</sup>, Justin Ely<sup>4</sup>, Tim Jenness<sup>23,24</sup>, Kathleen Labrie<sup>25</sup>, Pey Lian Lim<sup>4</sup>, Francesco Pierfederici<sup>4</sup>, Andrew Pontzen<sup>26,27</sup>, Andy Ptak<sup>28</sup>, Brian Refsdal<sup>5</sup>, Mathieu Servillat<sup>29,5</sup>, and Ole Streicher<sup>30</sup> Max-Planck-Institut für Astronomie, Königstuhl 17, 69117 Heidelberg, Germany e-mail: robitaille@mpia.de
Department of Astronomy, Yale University, PO Box 208101, New Haven, CT 06510, USA Hubble Fellow

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Harvard-Smithsonian Center for Astrophysics, 60 Garden Street, Cambridge, MA 02138, USA
Center for Astrophysics and Space Astronomy, University of Colorado, Boulder, CO 80309, USA
Department of Astronomy columbia University, Pupin Hall, 550W 120th St., New York, NY 10027, USA
Department of Astronomy and Astrophysics, University of Toronto, 50 Saint George Street, Toronto, ON M5S3H4, Canada
Argonno National Laboratory, High Energy Physics Division, 9700 South Cass Avenue, Argonne, II. 60439, USA
Department of Astronomy, Ohio State University, Columbus, OH 43210, USA
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2 Independent developer
3 Max-Pianck-Institut für Kernphysik, PO Box 103980, 69029 Heidelberg, Germany
4 European Southern Observatory, Karl-Schwarzschild-Str. 2, 85748 Garching bei München, Germany
5 Laboratoire d'Astrophysique de Marseille, OAMP, Université Aix-Marseille et CNRS, 13388 Marseille, France
6 International Control of Astrophysique de Marseille, OAMP, Université Aix-Marseille et CNRS, 13388 Marseille, France
7 Gemini Observatory, Csailla 603, La Serena, Chile
8 LIGO Laboratory, California Institute of Technology, 1200 E. California Blvd., Pasadena, CA 91125, USA
8 Center for Cosmology and Particle Physics, New York University, New York, NY 10003, USA
8 Department of Physics and Astronomy, Louisiana State University, New York, NY 10003 USA
8 Research School of Astronomy and Astronowies, Australian National University, Mount Stromo Observatory, via
8 Research School of Astronomy and Astronomy. Research School of Astronomy and Astrophysics, Australian National University, Mount Stromlo Observatory, via Cotter Road, Weston Creek ACT 2611, Australia Weston Creek AC. I 2611, Australia
SAAO, PO Box 9, Observatory 7935, 7925 Cape Town, South Africa
Joint Astronomy Centre, 660 N. A'obikii Piace, Hilo, HI 96720, USA
Department of Astronomy, Cornell University, Ithaca, NY 14853, USA
Gemini Observatory, 670 N. A'obikii Place, Hilo, HI 96720, USA 25 Centini Goservanos, 670 N. A Onoxid Pader, Filio, III 99 (20, USA)
26 Oxford Astrophysics, Denys Wilkinson Building, Keble Road, Oxford OXI 3RH, UK
27 Department of Physics and Astronomy, University College London, London WCIE 6BT, UK
28 NASA Goddard Space Figila Center, X-ray Astrophysics Lab Code 662, Greenbeit, IMD 20771, USA
27 Laboratoire AIM, CEA Saclas, Bit. 700, 9119 GP, anter Yvette, France
28 Leibniz-Institut für Astrophysik Potsdam, GP), An der Stermwarte 16, 14482 Potsdam, Germany Received 12 June 2013 / Accepted 23 July 2013 We present the first public version (v0.2) of the open-source and community-developed Python package. Astropy, This package We present the first public version (Vo.2) of the open-source and community-developed Python package, Astropy. This package provides core astronomy-related functionality to the community, including support for domain-specific file formats such as flexible image transport system (FITS) files, Virtual Observatory (VO) tables, and common ASCII table formats, unit and physical quantity conversions, physical constants specific to astronomy, celestial coordinate and time transformations, world coordinates system (WCS) support, generalized containers for representing gridded as well as tabular data, and a framework for cosmological transformations and conversions. Significant functionality is under active development, such as a model fitting framework. VO client and server tools, and aperture and point spread function (PSF) photometry tools. The core development team is actively making additions and enhancements o the current code base, and we encourage anyone interested to participate in the development of future Astropy versions. Key words, methods: data analysis - methods: miscellaneous - virtual observatory tools Article published by EDP Sciences A33, page 1 of 9 A33, page 1 of 9







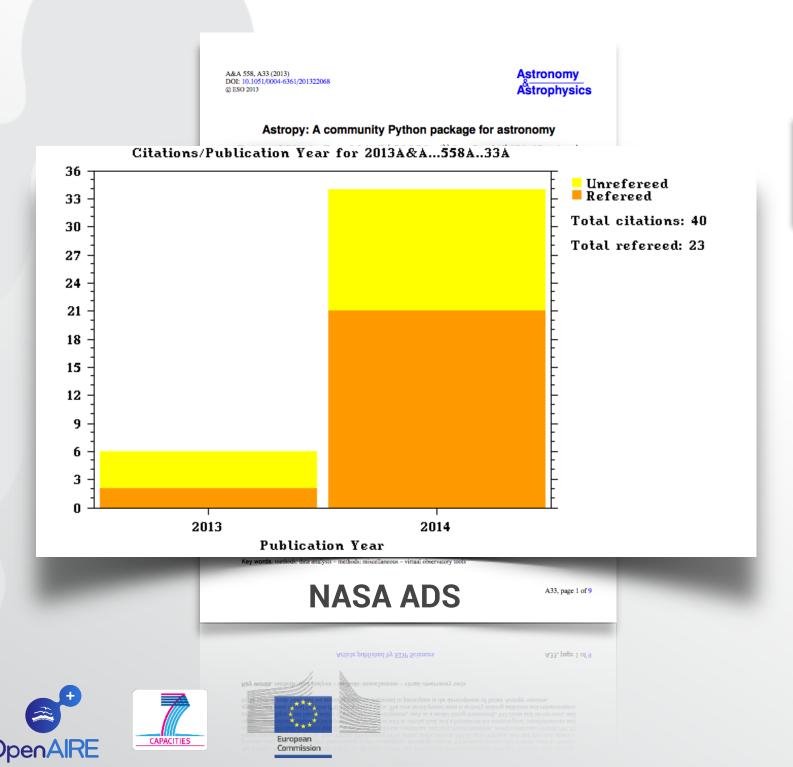


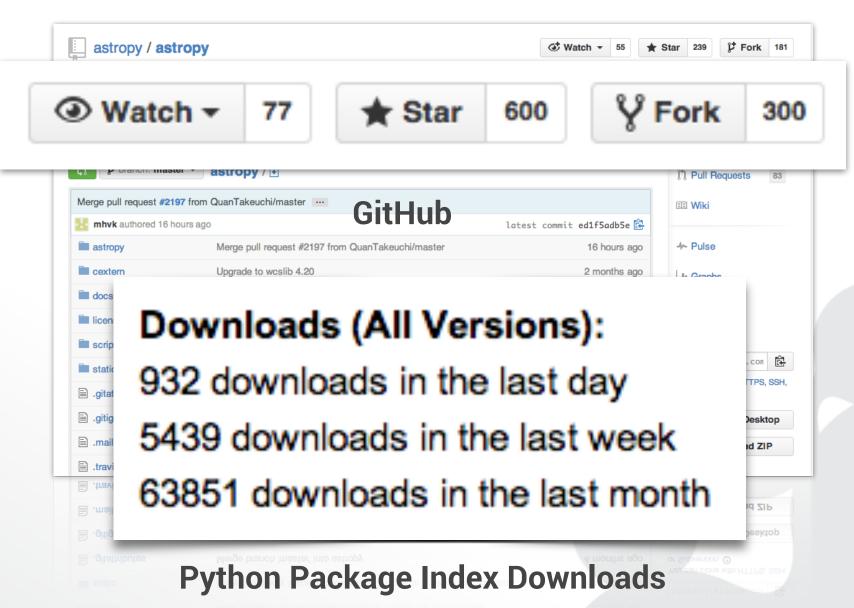














## # papers 2008-2014



caveat: quick'n'dirty ADS search











## # papers 2008-2014



4000 ADS search careat: quick'n' dirty



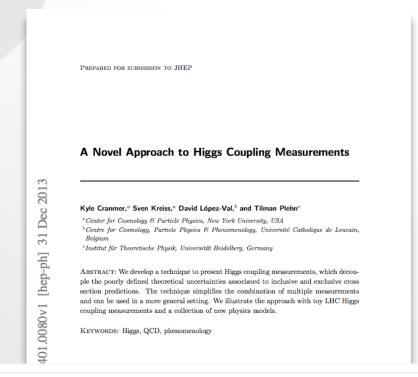








### Software citation

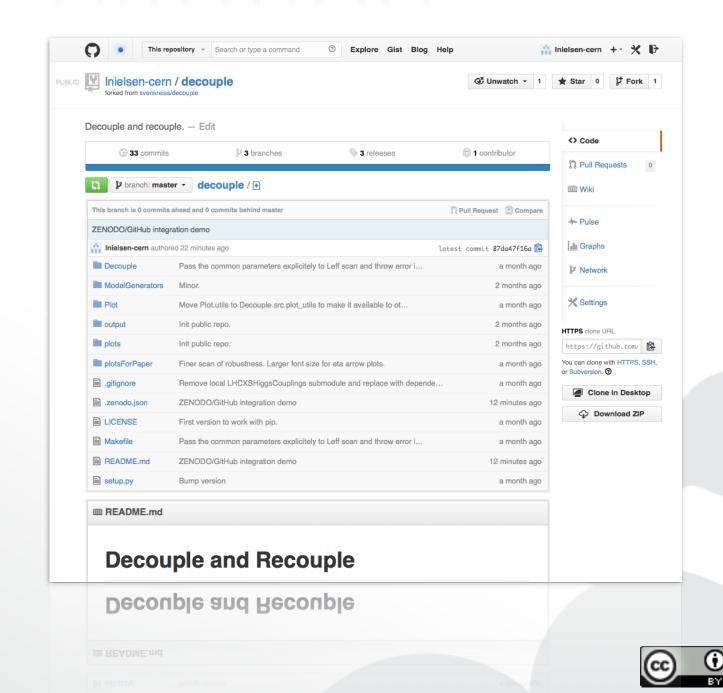


[25] K. Cranmer, S. Kreiss, D. López-Val, T. Plehn, https://github.com/svenkreiss/decouple.



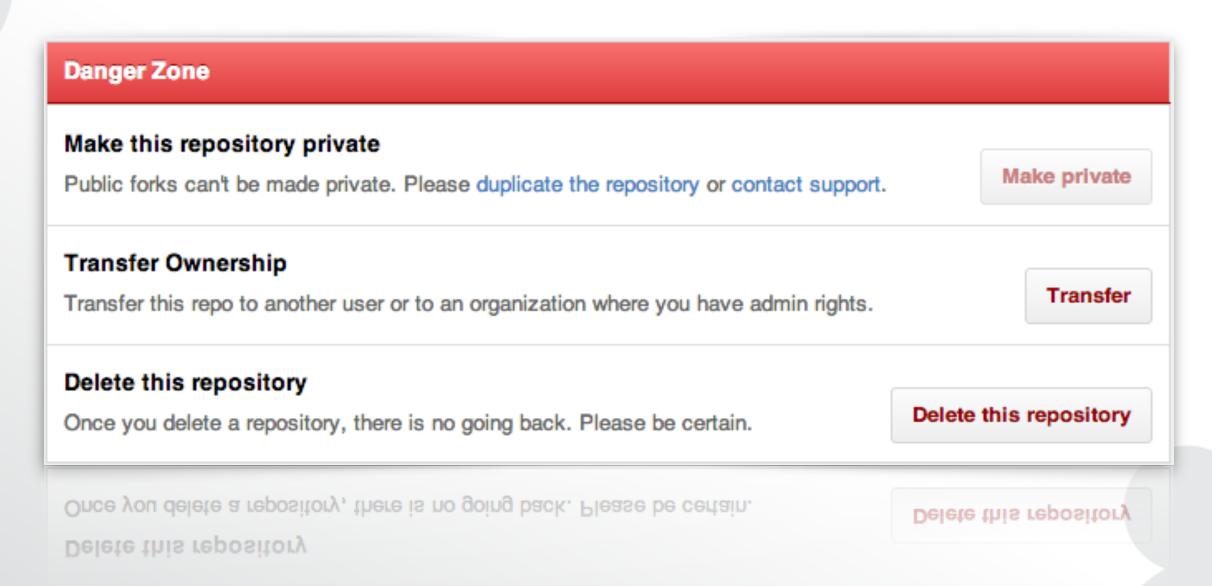








### GitHub + Science













# Archiving

# Crediting



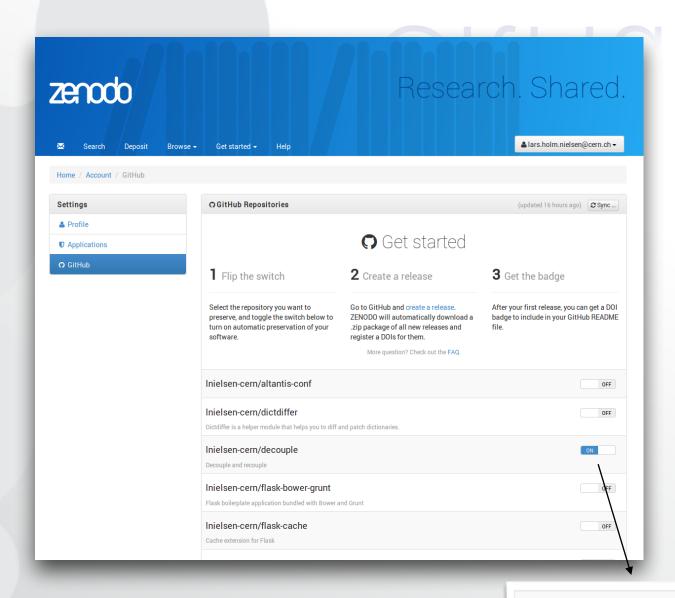


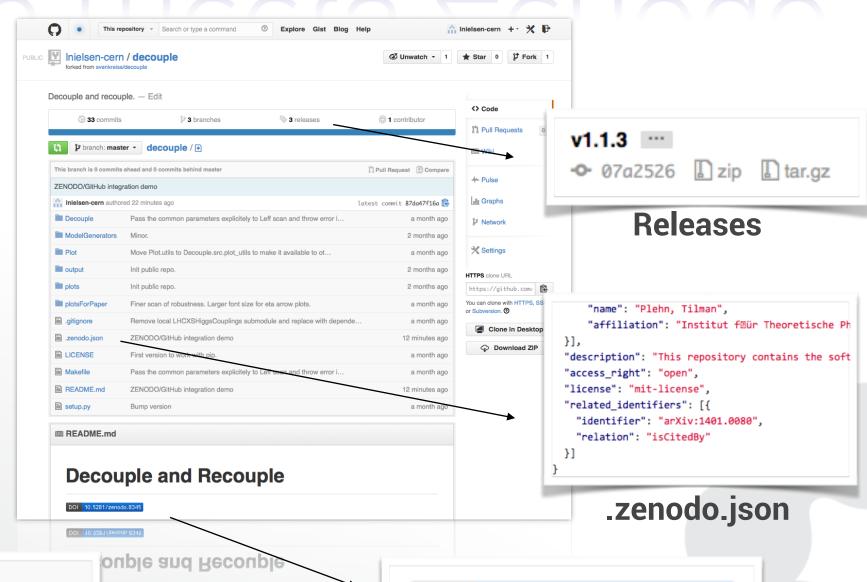






### GitHub meets Zenodo

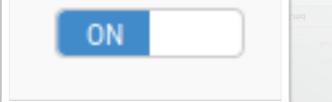












DOI 10.5281/zenodo.8345





### Software meets INSPIRE





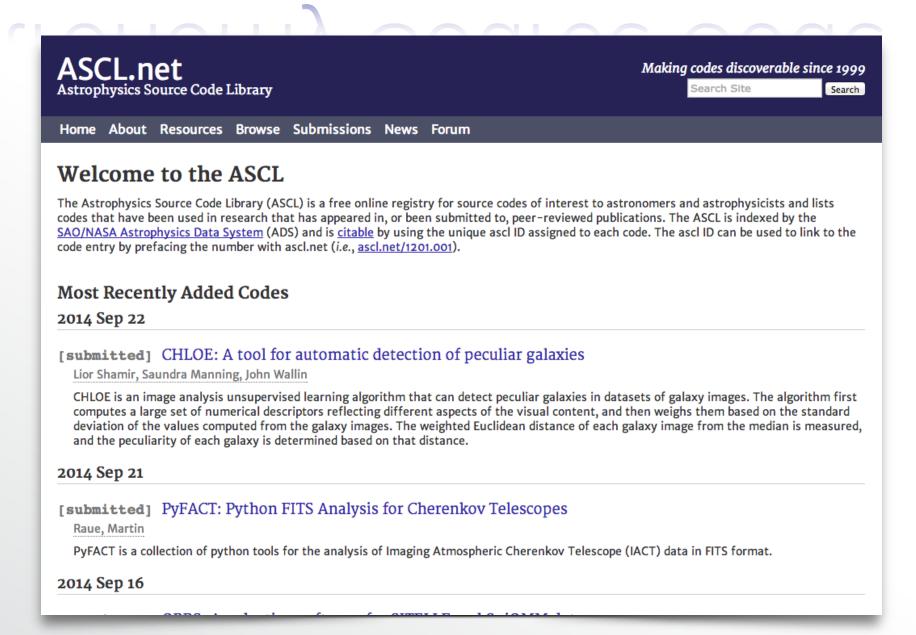








### Astronomy Source Code Library















### INVENJO)

http://www.invenio-software.org
http://github.com/zenodo



http://inspirehep.net/







## Safety









### Easy to use

**DropBox integration** 

Drag-n-drop deposition

Programmable API

### **Low barriers**

Little fixed metadata

### No restrictions

Type, format, license

### Differentiating

### Features Features

Distributed community curation

### Longevity

Not a company
Large-scale operation









Thank You Research. Shared.



http://zenodo.org



@zenodo\_org



lars.holm.nielsen@cern.ch







