

Приложение RBD. Полный библиографический источник Reper-базы v4.6

236 canonical sources + 2 derived volume-level source IDs; no-loss bibliography register

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1. Статус приложения

Настоящее приложение фиксирует полный перечень библиографических источников, из которых собрана Reper-база KLT-RBD/RPD v2.1. Канонический счёт Appendix E сохраняется: 236 canonical sources, 1145 work/source units, 2212 Reper nodes, 2478 Reper edges. Для аудита добавлены 2 volume-level source_id, обнаруженные в таблицах works/reper и связанные с Einstein Collected Papers. Это не меняет канонический счёт 236, а уточняет трассировку ID.

2. Сводка RBD-источников

Metric	Value
Canonical sources	236
Work/source units	1145
Reper nodes	2212
Reper edges	2478
Audit source rows	238
Derived volume-level IDs	2

3. Domain summary / Сводка по доменам

Domain	Sources	Work units	Reper nodes	Edges
physics	47	881	974	911
mathematics	68	105	422	459
klt_database	1	1	96	168
mathematics/physics	11	18	74	37
mathematics/probability	6	6	42	43
mathematical physics	6	6	40	31
mathematics_education	4	29	34	32
mathematical physics	10	10	31	23
mechanics/mathematics	2	4	28	13
scholarly_graph	6	5	25	10
klt_math_physics	1	1	24	24
klt_rbd_api	1	2	24	22
formal_methods	10	10	23	14
formal_proof_skeletons	1	3	22	24
klt_internal	1	2	22	157
mathematics/foundations	2	2	18	26
klt_connector	1	2	17	15
KLT/foundations	1	1	16	0
rbd_acceptance_gate	1	2	16	14
mathematics/information_geometry	2	2	14	14

4. Full bibliographic source register / Полный перечень источников

The machine-complete CSV/JSON files are attached in data/rbd_sources. The following table is the publication-readable version of the full register.

№	source_id / domain	author	title / year	type / access / URL	units / Reper
1	SRC-KLT-V12 KLT/RBD	Ivan Borisovich Kurpishev / editorial compilation	KLT-RBD v1.2 Variational-Gauge bridge layer 2026	internal_layer internal KLT Reper layer internal	works=1 repers=0 edges=0 canonical_sources_csv
2	SRC-KLT-HIL-NOE-SYNTH-V08 KLT/foundations	Ivan Borisovich Kurpishev / KLT editorial synthesis	Hilbert-Noether Axiomatic- Invariant Reper Synthesis v0.8 2026	internal_synthesis synthetic KLT layer built from Hilbert and Noether source Reper nodes nan	works=1 repers=16 edges=0 canonical_sources_csv
3	SRC-NOE-EUDML-IDEAL1921 algebra	Emmy Noether	Idealtheorie in Ringbereichen 1921	journal_article_metadata EuDML metadata and full article access link https://eudml.org/doc/158855	works=1 repers=4 edges=7 canonical_sources_csv
4	SRC-NOE-EUDML- NONCOMM1933 algebra	Emmy Noether	Nichtkommutative Algebra 1933	journal_article_metadata EuDML metadata and full article access link https://eudml.org/doc/168463	works=1 repers=3 edges=4 canonical_sources_csv
5	SRC-NOE-EUDML-ABSTRACT1927 algebra/number theory	Emmy Noether	Abstrakter Aufbau der Idealtheorie in algebraischen Zahl- und Funktionskörpern 1927	journal_article_metadata EuDML metadata and full article access link https://eudml.org/doc/159155	works=1 repers=3 edges=3 canonical_sources_csv
6	SRC-NOE-EUDML-HYPER1929 algebra/representation theory	Emmy Noether	Hyperkomplexe Größen und Darstellungstheorien 1929	journal_article_metadata EuDML metadata and full article access link https://eudml.org/doc/168145	works=1 repers=2 edges=2 canonical_sources_csv
7	SRC-V21-BIS-BASEL banking	Basel Committee on Banking Supervision / BIS	The Basel Framework current	prudential_standard BCBS global banking prudential standards https://www.bis.org/baselframework/k/BaselFramework.pdf	works=1 repers=0 edges=0 canonical_sources_csv
8	SRC-V21-OPENSTAX-ANP biology	OpenStax / Rice University	Anatomy and Physiology 2e 2022	open_textbook web/PDF access through OpenStax https://openstax.org/books/anatomy-and-physiology-2e/pages/1-introduction	works=1 repers=0 edges=0 canonical_sources_csv
9	SRC-V21-OPENSTAX-BIO biology	OpenStax / Rice University	Biology 2e 2018	open_textbook web/PDF access through OpenStax https://openstax.org/books/biology-2e/pages/preface	works=1 repers=8 edges=8 canonical_sources_csv
10	SRC-V21-IUPAC-GOLD chemistry	IUPAC	Compendium of Chemical Terminology / Gold Book ongoing	authoritative_terminology IUPAC terminology source https://goldbook.iupac.org/pages/about	works=1 repers=0 edges=0 canonical_sources_csv
11	SRC-V21-OPENSTAX-CHEM chemistry	OpenStax / Rice University	Chemistry 2e 2019	open_textbook web/PDF access through OpenStax https://openstax.org/books/chemistry-2e/pages/preface	works=1 repers=8 edges=8 canonical_sources_csv
12	SRC-V21-NIST-MAT construction	NIST	Materials and Structures for Resilience Program current	federal_research_program materials and structural systems resilience https://www.nist.gov/programs-projects/materials-and-structures-resilience-program	works=1 repers=0 edges=0 canonical_sources_csv
13	SRC-V21-NIST-RES construction	NIST	Resilience Research current	federal_research_program buildings/community resilience research https://www.nist.gov/resilience	works=1 repers=8 edges=7 canonical_sources_csv
14	SRC-FAIR-PRINCIPLES data_governance	GO FAIR / Wilkinson et al.	FAIR Principles 2016/current	data_governance_principles public explanatory page https://www.go-fair.org/fair-principles	works=1 repers=5 edges=2 canonical_sources_csv
15	SRC-V21-MONGE-OL	Gaspard Monge	Geometrie descriptive	public_domain_historical	works=1

	descriptive_geometry		1827/1847 editions	Open Library / Internet Archive metadata https://openlibrary.org/books/OL20509788M/G%C3%A9om%C3%A9trie_descriptive	repers=8 edges=8 canonical_sources_csv
16	SRC-V21-MAA-MONGE descriptive_geometry	Mathematical Association of America	Gaspard Monge's Descriptive Geometry 2008/2011	historical_overview MAA Convergence article https://old.maa.org/press/periodicals/convergence/mathematical-treasures-gaspard-monges-descriptive-geometry	works=1 repers=0 edges=0 canonical_sources_csv
17	SRC-V21-OPENSTAX-FIN finance	OpenStax / Rice University	Principles of Finance 2022	open_textbook web/PDF access through OpenStax https://openstax.org/books/principles-finance/pages/preface	works=1 repers=8 edges=8 canonical_sources_csv
18	SRC-V21-SEC-INDEX finance	U.S. SEC Investor.gov	Index Funds current	regulator_investor_education official investor education https://www.investor.gov/introduction-investing/investing-basics/investment-products/mutual-funds-and-exchange-traded-4	works=1 repers=0 edges=0 canonical_sources_csv
19	SRC-V21-OPENSTAX-ECON finance_economics	OpenStax / Rice University	Principles of Economics 3e 2022	open_textbook web/PDF access through OpenStax https://openstax.org/books/principles-economics-3e/pages/preface	works=1 repers=0 edges=0 canonical_sources_csv
20	SRC-V21-IMF-DATA finance_macro	IMF	IMF Data Portal current	official_statistics macroeconomic and financial data portal https://www.imf.org/en/data	works=1 repers=3 edges=3 canonical_sources_csv
21	SRC-ISABELLE-AFP formal_methods	Archive of Formal Proofs	Archive of Formal Proofs current	formal_proof_archive public archive https://www.isa-afp.org/	works=1 repers=1 edges=1 canonical_sources_csv
22	SRC-COQ-REFMAN formal_methods	Coq Development Team	The Coq Proof Assistant Reference Manual versioned	reference_manual public versioned manuals https://rocq-prover.org/doc/	works=1 repers=0 edges=0 canonical_sources_csv
23	SRC-TPTP formal_methods	Geoff Sutcliffe and TPTP contributors	The TPTP Problem Library current	automated_reasoning_infrastructure public library and documentation https://tptp.org/TPTP/	works=1 repers=1 edges=0 canonical_sources_csv
24	SRC-TSTP formal_methods	Geoff Sutcliffe and TSTP contributors	The TSTP Solution Library current	solution_library public solution library https://tptp.org/TSTP/	works=1 repers=0 edges=0 canonical_sources_csv
25	SRC-ISABELLE-OFFICIAL formal_methods	Isabelle developers	Isabelle official website and documentation current	official_documentation public documentation https://isabelle.in.tum.de/	works=1 repers=6 edges=4 canonical_sources_csv
26	SRC-LEAN4-TPIL formal_methods	Jeremy Avigad, Leonardo de Moura, Soonho Kong, Sebastian Ullrich, Lean Community	Theorem Proving in Lean 4 current	official_tutorial_book public online book https://docs.lean-lang.org/theorem_proving_in_lean4/	works=1 repers=8 edges=7 canonical_sources_csv
27	SRC-LEAN4-MATHLIB formal_methods	Lean community	Mathlib / Lean mathematical library documentation current	library_documentation public documentation overview https://leanprover-community.github.io/documentation.html	works=1 repers=1 edges=1 canonical_sources_csv
28	SRC-LEAN4-OFFICIAL formal_methods	Lean developers	Lean 4 official language and theorem prover resources current	official_documentation public documentation and examples https://lean4.dev/	works=1 repers=0 edges=0 canonical_sources_csv
29	SRC-ROCQ-RELEASES formal_methods	Rocq Prover developers	Rocq Prover and Rocq Platform releases current	release_documentation public release notes https://rocq-prover.org/releases	works=1 repers=1 edges=0 canonical_sources_csv
30	SRC-ROCQ-OFFICIAL formal_methods	Rocq Prover developers	The Rocq Prover official site current	official_documentation public documentation and release pages	works=1 repers=5 edges=1

31	SRC-KLT-V19-FORMAL formal_proof_skeletons	Ivan Borisovich Kurpishev / editorial build	KLT-RBD v1.9 theorem skeletons for Lean Rocq Isabelle 2026	https://rocq-prover.org/ internal_spec project-internal generated artifact internal://klt-rbd/v1.9/formal	canonical_sources_csv works=3 repers=22 edges=24 canonical_sources_csv
32	SRC-HIL-AXIOMATIC-THINKING foundations/logic	David Hilbert	Axiomatisches Denken / Axiomatic Thinking 1917 / 1918 / 1970 / 2022	bibliographic_metadata Springer overview of Axiomatic Thinking I; use metadata only https://link.springer.com/book/10.1007/978-3-030-77657-2	works=1 repers=3 edges=4 canonical_sources_csv
33	SRC-V21-NASA-EARTH geography	NASA Earthdata	Earth Science Data / Earth Observation Data current	official_data_portal Earth observation data portal https://www.earthdata.nasa.gov/data	works=1 repers=3 edges=3 canonical_sources_csv
34	SRC-V21-WB-WDI geography_economics	World Bank	World Development Indicators current	official_statistics international development indicators https://datatopics.worldbank.org/world-development-indicators/world-development-indicators-reports.html	works=1 repers=3 edges=3 canonical_sources_csv
35	SRC-V21-LOC-PRIMARY history_geography	Library of Congress	Primary Source Sets and Digital Collections current	primary_source_collections primary source sets on specific topics https://www.loc.gov/programs/teachers/classroom-materials/primary-source-sets/	works=1 repers=10 edges=11 canonical_sources_csv
36	SRC-V21-IAIS-ICP insurance	IAIS	Insurance Core Principles and ComFrame updated 2024	supervisory_standard insurance supervision principles https://www.iais.org/page/supervisory-material/insurance-core-principles-and-comframe	works=1 repers=4 edges=4 canonical_sources_csv
37	SRC-KLT-V19-CONNECTOR klt_connector	Ivan Borisovich Kurpishev / editorial build	KLT 4.14 and KLT 5.1 connector contract for RBD 2026	internal_spec project-internal generated artifact internal://klt-rbd/v1.9/klt-connector	works=2 repers=17 edges=15 canonical_sources_csv
38	SRC-KLT-V20-RBD klt_database	Ivan Borisovich Kurpishev / KLT editorial build	Reper Database v2.0 — Revision, Horizon, Limit, Semantic Fog 2026	database_schema RBD schema extension for prediction and rebuild internal://klt/rbd/schema/v2.0	works=1 repers=96 edges=168 canonical_sources_csv
39	SRC-KLT-V20-FALSIF klt_falsification	Ivan Borisovich Kurpishev / KLT editorial build	KLT Falsifiability and Nearest Reper Rebuild Protocol v2.0 2026	protocol forecast mismatch starts nearest Reper rebuild internal://klt/falsification/v2.0	works=1 repers=0 edges=0 canonical_sources_csv
40	SRC-KLT-V20-FORMAL klt_formalization	Ivan Borisovich Kurpishev / KLT editorial build	KLT Predictive Formal Skeletons v2.0 2026	formal_skeleton_catalog stub layer, not proof-complete certificate internal://klt/formal/v2.0	works=1 repers=4 edges=3 canonical_sources_csv
41	SRC-KLT-V20-HOST klt_hosting	Ivan Borisovich Kurpishev / KLT editorial build	KLT Predictive RBD Hosting Patch v2.0 2026	hosting_patch static JSON and JS connector for KLT 4.14/5.1 internal://klt/hosting/v2.0	works=1 repers=8 edges=19 canonical_sources_csv
42	SRC-KLT-V18-INTERNAL klt_internal	Ivan Borisovich Kurpishev / editorial assembly	KLT-RBD v1.8 computable proof- citation protocol 2026	internal_protocol generated internal protocol for RBD nan	works=2 repers=22 edges=157 canonical_sources_csv
43	SRC-KLT-V20-LIMITS klt_limit_geometry	Ivan Borisovich Kurpishev / KLT editorial build	Limit-Causal v2.0 — Political, Ecological, Raum, Time, Ontology Limits 2026	internal_axiom_layer five limit families for predictive reper construction internal://klt/limits/v2.0	works=1 repers=5 edges=34 canonical_sources_csv
44	SRC-KLT-WK-INVARIANCE-ALG- V07 klt_math_physics	Иван Борисович Курпишев / KLT synthesis	Witten-Klein Invariance Algebra / KLT-RBD v0.7 2026	internal_synthesis KLT synthetic Reper-algebra layer; no copyrighted source text stored internal://klt-rbd/v0.7/witten-klein- invariance-algebra	works=1 repers=24 edges=24 canonical_sources_csv
45	SRC-KLT-V20-OPER klt_operator_triad	Ivan Borisovich Kurpishev / KLT editorial build	Operator Triad v2.0 — operI / operU / operR and derivatives 2026	formal_notation_layer motion-action, change, inertial reversal operators internal://klt/operators/v2.0	works=1 repers=8 edges=31 canonical_sources_csv

46	SRC-KLT-V20-PRED klt_predictive_math	Ivan Borisovich Kurpishev / KLT editorial build	KLT-RBD v2.0 — Predictive Reper Mathematics 2026	internal_specification project internal source generated from KLT conceptual line internal://klt/rbd/v2.0/predictive	works=1 repers=12 edges=71 canonical_sources_csv
47	SRC-KLT-V19-API klt_rbd_api	Ivan Borisovich Kurpishev / editorial build	KLT-RBD v1.9 API layer and OpenAPI contract 2026	internal_spec project-internal generated artifact internal://klt-rbd/v1.9/api	works=2 repers=24 edges=22 canonical_sources_csv
48	SRC-KLT-V19-VECTOR klt_rbd_vector_index	Ivan Borisovich Kurpishev / editorial build	KLT-RBD v1.9 local vector index schema 2026	internal_spec project-internal generated artifact internal://klt-rbd/v1.9/vector	works=2 repers=13 edges=12 canonical_sources_csv
49	SRC-KLT-V20-SCENARIO klt_scenario_graph	Ivan Borisovich Kurpishev / KLT editorial build	PIX@PEAKS Scenario Graph v2.0 2026	schema_specification event-state-limit graph representation internal://klt/pix-peaks/scenario/v2. 0	works=1 repers=0 edges=0 canonical_sources_csv
50	SRC-V21-PG literature_history	Project Gutenberg	Free eBooks / public domain corpus current	public_domain_library over 75,000 free eBooks; focus on public-domain older works https://www.gutenberg.org/	works=1 repers=0 edges=0 canonical_sources_csv
51	SRC-WADLER-2015 logic/computation	Philip Wadler	Propositions as Types 2015	article bibliographic page and author manuscript link; no text stored https://doi.org/10.1145/2699407	works=1 repers=7 edges=7 canonical_sources_csv
52	SRC-NLAB-HOTT-2025 logic/higher_category_theory	nLab contributors	Homotopy Type Theory ongoing / 2025 access	reference_article reference page; no bulk text stored https://ncatlab.org/nlab/show/homo topy+type+theory	works=1 repers=7 edges=6 canonical_sources_csv
53	SRC-HOTT-2013 logic/homotopy_type_theory	The Univalent Foundations Program	Homotopy Type Theory: Univalent Foundations of Mathematics 2013	book official book page; no bulk text stored https://homotopytypetheory.org/bo ok/	works=1 repers=7 edges=7 canonical_sources_csv
54	SRC-SEP-MLTT-2024 logic/type_theory	Stanford Encyclopedia of Philosophy contributors	Intuitionistic Type Theory 2016 / 2024 revision	reference_article reference article; no bulk text stored https://plato.stanford.edu/entries/ty pe-theory-intuitionistic/	works=1 repers=7 edges=7 canonical_sources_csv
55	SRC-WIT-IAS math_physics	Edward Witten	Edward Witten's Scientific Publications ongoing list	official_publication_list bibliographic list and links https://www.ias.edu/sns/witten/Scie ntific-Publications	works=0 repers=5 edges=0 canonical_sources_csv
56	SRC-WIT-IAS-PROFILE math_physics	Edward Witten	IAS scholar profile current	official_profile summary profile https://www.ias.edu/scholars/witten	works=0 repers=4 edges=81 canonical_sources_csv
57	SRC-SYZ-1996-T-DUALITY mathematical_physics	Andrew Strominger; Shing-Tung Yau; Eric Zaslow	Mirror symmetry is T-duality 1996	journal_article_metadata ScienceDirect/Northwestern metadata; conceptual Reper abstraction only https://doi.org/10.1016/0550- 3213(96)00434-8	works=1 repers=6 edges=5 canonical_sources_csv
58	SRC-CLAY-DBMS-2009 mathematical_physics	Aspinwall et al.; Douglas and Gross editors	Dirichlet Branes and Mirror Symmetry 2009 / Clay resource	monograph_resource Clay resource page and freely available PDF; conceptual Reper abstraction only https://www.claymath.org/resource /dirichlet-branes-and-mirror- symmetry/	works=1 repers=27 edges=14 canonical_sources_csv
59	SRC-HIL-EUDML-PHYS1924 mathematical_physics	David Hilbert	Die Grundlagen der Physik 1924	journal_article_metadata EuDML metadata and full article access link https://eudml.org/doc/159053	works=1 repers=1 edges=0 canonical_sources_csv
60	SRC-HIL-EUDML-PHYS1 mathematical_physics	David Hilbert	Die Grundlagen der Physik. Erste Mitteilung 1915	journal_article_metadata EuDML metadata and full article access link https://eudml.org/doc/58946	works=1 repers=3 edges=8 canonical_sources_csv
61	SRC-HIL-EUDML-PHYS2	David Hilbert	Die Grundlagen der Physik. Zweite	journal_article_metadata	works=1

	mathematical physics		Mitteilung 1917	EuDML metadata and full article access link https://eudml.org/doc/58973	repers=1 edges=2 canonical_sources_csv
62	SRC-HIL-EUDML-MMP mathematical physics	Richard Courant; David Hilbert	Methoden der mathematischen Physik 1924/1937	monograph_metadata EuDML monograph record for Methoden der mathematischen Physik Vols. 1-2 https://eudml.org/mbook/10081	works=1 repers=2 edges=2 canonical_sources_csv
63	SRC-NOE-EUDML-IVP mathematical physics/algebra	Emmy Noether	Invariante Variationsprobleme 1918	journal_article_metadata EuDML metadata and full article access link; CERN also has record https://eudml.org/doc/59024	works=1 repers=6 edges=18 canonical_sources_csv
64	SRC-NOE-CERN-IVP mathematical physics/algebra	Emmy Noether	Invariante Variationsprobleme / CERN record 1918	bibliographic_metadata CERN Document Server bibliographic record https://cds.cern.ch/record/435180	works=0 repers=0 edges=0 canonical_sources_csv
65	SRC-WIT-CALTECH-LANGLANDS mathematical_physics	Anton Kapustin; Edward Witten	Electric-Magnetic Duality And The Geometric Langlands Program 2006	institutional_repository_record CaltechAUTHORS record for submitted version metadata https://authors.library.caltech.edu/records/y0xg2-pe539	works=1 repers=3 edges=5 canonical_sources_csv
66	SRC-WIT-EMS-FIVEBRANES mathematical_physics	Edward Witten	Fivebranes and knots 2012	journal_record_open EMS Press record with DOI and abstract metadata https://ems.press/journals/qt/article/s/4378	works=1 repers=3 edges=3 canonical_sources_csv
67	SRC-WIT-IAS-LANGLANDS- INTERVIEW mathematical_physics	Edward Witten	Geometric Langlands, Khovanov Homology, String Theory 2015	official_ideas_interview IAS Ideas interview used for high- level thematic context https://www.ias.edu/ideas/2015/wit ten-interview	works=1 repers=1 edges=0 canonical_sources_csv
68	SRC-WIT-IAS-KNOTS mathematical_physics	Edward Witten	Knots and Quantum Theory 2011	official_ideas_article IAS Ideas article used for high-level thematic context https://www.ias.edu/node/199116	works=1 repers=2 edges=0 canonical_sources_csv
69	SRC-WIT-SCI-MIRROR mathematical_physics	Edward Witten	Mirror manifolds and topological field theory 1991	preprint_metadata arXiv metadata and known bibliographic node used for thematic indexing https://arxiv.org/abs/hep-th/911205 6	works=1 repers=3 edges=1 canonical_sources_csv
70	SRC-WIT-MRL-MONOPOLES mathematical_physics	Edward Witten	Monopoles and four-manifolds 1994	doi_metadata DOI/bibliographic metadata used for Seiberg-Witten Reper layer https://doi.org/10.4310/MRL.1994.v 1.n6.a13	works=1 repers=3 edges=2 canonical_sources_csv
71	SRC-WIT-PRIN-JONES mathematical_physics	Edward Witten	Quantum field theory and the Jones polynomial 1989	publication_record Princeton publication record with abstract/DOI metadata https://collaborate.princeton.edu/e n/publications/quantum-field- theory-and-the-jones-polynomial/	works=1 repers=4 edges=6 canonical_sources_csv
72	SRC-WIT-PRIN-STRING-DYN mathematical_physics	Edward Witten	String theory dynamics in various dimensions 1995	publication_record Princeton publication record with abstract/DOI metadata https://collaborate.princeton.edu/e n/publications/string-theory- dynamics-in-various-dimensions	works=1 repers=4 edges=3 canonical_sources_csv
73	SRC-WIT-PRIN-SUSY-MORSE mathematical_physics	Edward Witten	Supersymmetry and Morse theory 1982	publication_record Princeton publication record with DOI and bibliographic metadata https://collaborate.princeton.edu/e n/publications/supersymmetry-and- morse-theory/	works=1 repers=4 edges=1 canonical_sources_csv
74	SRC-WIT-PRIN-TQFT mathematical_physics	Edward Witten	Topological quantum field theory 1988	publication_record Princeton publication record with abstract/DOI metadata https://collaborate.princeton.edu/e n/publications/topological-	works=1 repers=4 edges=2 canonical_sources_csv

75	SRC-KOL-PROB mathematics	A. N. Kolmogorov	Foundations of the Theory of Probability 1933 / English 1950	quantum-field-theory/ open_record Zenodo record https://zenodo.org/records/7883088	works=0 repers=2 edges=0 canonical_sources_csv
76	SRC-KOL-PROB-ZENODO-1950 mathematics	A. N. Kolmogorov	Foundations of the Theory of Probability / English translation edited by Nathan Morrison 1950	book_record book record and PDF availability; no bulk text stored in RBD https://zenodo.org/records/7883088	works=1 repers=13 edges=13 canonical_sources_csv
77	SRC-KOL-PROB-CAMBRIDGE- REVIEW1951 mathematics	A. N. Kolmogorov	Foundations of the Theory of Probability / Journal of the Institute of Actuaries review record 1951	review_record bibliographic verification record https://www.cambridge.org/core/journals/journal-of-the-institute-of-actuaries/article/foundations-of-the-theory-of-probability-by-a-n-kolmogorov-pp-viii-71-new-york-chelsea-publishing-co-1950-250/D6E6462BFED4A1967E50B14B972E59E7	works=1 repers=1 edges=0 canonical_sources_csv
78	SRC-KOL-INFO-CINII1965 mathematics	A. N. Kolmogorov	Three Approches to the Quantitative Definition of Information 1965	article_record bibliographic metadata only https://cir.nii.ac.jp/crid/1573387450538851968?lang=en	works=1 repers=2 edges=4 canonical_sources_csv
79	SRC-KOL-INFO-MLA1968 mathematics	A. N. Kolmogorov	Three Approches to the Quantitative Definition of Information / English publication record 1968	article_record abstract and bibliographic metadata https://mlanthology.org/misc/1968/kolmogorov1965misc-three/	works=1 repers=2 edges=1 canonical_sources_csv
80	SRC-GRO-CSG-PUBLISHED mathematics	Alexander Grothendieck	Published works catalogue / CSG Istituto Grothendieck ongoing	published_works_catalogue bibliographic catalogue for Grothendieck works https://csg.igrothendieck.org/published-works/	works=1 repers=15 edges=3 canonical_sources_csv
81	SRC-GRO-SGA1-MAA mathematics	Alexander Grothendieck	Revêtements Étales et Groupe Fondamental (SGA 1) / MAA review 2006	review_record review and historical reference https://old.maa.org/press/maa-reviews/rev-tements-etales-et-groupe-fondamental-sga-1?device=mobile	works=0 repers=0 edges=0 canonical_sources_csv
82	SRC-GRO-TOHOKU-1957 mathematics	Alexander Grothendieck	Sur quelques points d'algèbre homologique 1957	journal_article_record J-STAGE record and PDF access; RBD stores metadata/abstraction only https://www.jstage.jst.go.jp/article/tmj1949/9/2/9_2_119/article	works=1 repers=4 edges=4 canonical_sources_csv
83	SRC-GRO-EGA1-NUMDAM mathematics	Alexander Grothendieck and Jean Dieudonné	Éléments de géométrie algébrique I: Le langage des schémas 1960	journal_article_record Numdam metadata and bibliographic record https://www.numdam.org/articles/P01007/BF02699291/	works=1 repers=4 edges=4 canonical_sources_csv
84	SRC-GRO-EGA2-NUMDAM mathematics	Alexander Grothendieck and Jean Dieudonné	Éléments de géométrie algébrique II: Étude globale élémentaire de quelques classes de morphismes 1961	journal_article_record Numdam metadata and bibliographic record https://www.numdam.org/articles/P01007/BF02699291/	works=1 repers=4 edges=3 canonical_sources_csv
85	SRC-GRO-EGA3-NUMDAM mathematics	Alexander Grothendieck and Jean Dieudonné	Éléments de géométrie algébrique III: Étude cohomologique des faisceaux cohérents 1961	journal_article_record Numdam metadata and bibliographic record https://www.numdam.org/articles/P01007/BF02684273/	works=1 repers=3 edges=3 canonical_sources_csv
86	SRC-GRO-SGA1-OPENLIB mathematics	Alexander Grothendieck and Michel Raynaud	Revêtements étales et groupe fondamental (SGA 1) 1971/2003	book_record Open Library bibliographic metadata; edition record https://openlibrary.org/works/OL40694022W/Rev%C3%AAtements_%C3%A9tales_et_groupe_fondamental_%28SGA_1%29	works=1 repers=3 edges=4 canonical_sources_csv
87	SRC-ANDREWS-HOPPER-CG- COMPACTNESS	Ben Andrews; Christopher Hopper	The Compactness Theorem for Riemannian Manifolds	book_chapter ANU metadata	works=1 repers=3

	mathematics		2011/2015	https://researchportalplus.anu.edu.au/en/publications/the-compactness-theorem-for-riemannian-manifolds	edges=3 canonical_sources_csv
88	SRC-CHOW-KNOPF-2004-RICCI mathematics	Bennett Chow; Dan Knopf	The Ricci Flow: An Introduction 2004	ams_monograph_metadata AMS book page; conceptual Reper abstraction only https://bookstore.ams.org/SURV/110	works=1 reper=5 edges=2 canonical_sources_csv
89	SRC-RIE-WERKE-COMMONS1876 mathematics	Bernhard Riemann	Bernhard Riemann's Gesammelte mathematische Werke und wissenschaftlicher Nachlass 1876	collected_works_scan metadata and scan reference https://commons.wikimedia.org/wiki/Gesammelte_Mathematische_Werke_Riemann	works=3 reper=10 edges=4 canonical_sources_csv
90	SRC-RIE-HYP mathematics	Bernhard Riemann	On the Hypotheses Which Lie at the Bases of Geometry 1854 / Clifford translation	open_record Zenodo record of Clifford translation https://zenodo.org/record/7035861	works=0 reper=2 edges=0 canonical_sources_csv
91	SRC-RIE-HYP-SPRINGER-2016 mathematics	Bernhard Riemann	On the Hypotheses Which Lie at the Bases of Geometry / Classic Texts edition 2016	classic_text_commentary metadata and bibliographic reference; no bulk text stored https://link.springer.com/book/10.1007/978-3-319-26042-6	works=1 reper=4 edges=7 canonical_sources_csv
92	SRC-RIE-IU-MANUSCRIPT mathematics	Bernhard Riemann	Riemann 1859 manuscript notes / Indiana University gallery 1859	manuscript_context metadata and context about manuscript location https://math.indiana.edu/research/gallery/riemann.html	works=1 reper=0 edges=0 canonical_sources_csv
93	SRC-RIE-PRIMES-CLAY1859 mathematics	Bernhard Riemann	Ueber die Anzahl der Primzahlen unter einer gegebenen Grösse / Riemann 1859 manuscript 1859	historical_manuscript_and_translati on reference Clay Mathematics Institute manuscript page and links <a href="https://www.claymath.org/collectio
ns/riemanns-1859-manuscript/">https://www.claymath.org/collectio ns/riemanns-1859-manuscript/	works=1 reper=6 edges=5 canonical_sources_csv
94	SRC-RIE-HYP-SPRINGER-2025 mathematics	Bernhard Riemann / Jürgen Jost	Bernhard Riemann — On the Hypotheses Which Lie at the Bases of Geometry / latest CTS edition 2025	classic_text_commentary_latest metadata only; latest commentary edition https://link.springer.com/book/10.1007/978-3-031-91489-8	works=0 reper=0 edges=0 canonical_sources_csv
95	SRC-ASTERISQUE-58-CALABI- PROOF mathematics	Bourguignon et al.; Shing-Tung Yau	Première classe de Chern et courbure de Ricci: preuve de la conjecture de Calabi 1978	seminar_notes_metadata Numdam record and abstract; conceptual Reper abstraction only https://www.numdam.org/item/AST1978_58_1_0/	works=1 reper=1 edges=0 canonical_sources_csv
96	SRC-KLEINER-LOTT-PERELMAN- NOTES mathematics	Bruce Kleiner; John Lott	Notes and commentary on Perelman's Ricci flow papers 2006/2008	scholarly_notes_resource Kleiner-Lott resource page and notes; conceptual Reper abstraction only https://math.berkeley.edu/~lott/ricciflow/perelman	works=1 reper=4 edges=3 canonical_sources_csv
97	SRC-CLAY-POINCARÉ-OVERVIEW mathematics	Clay Mathematics Institute	Poincaré Conjecture overview and Perelman resources 2010/updated	official_problem_overview Clay Millennium problem overview; contextual Reper abstraction only <a href="https://www.claymath.org/millenni
um/poincare-conjecture/">https://www.claymath.org/millenni um/poincare-conjecture/	works=1 reper=12 edges=9 canonical_sources_csv
98	SRC-CLAY-GROSS-SIEBERT-2016 mathematics	Clay Mathematics Institute; Mark Gross; Bernd Siebert	2016 Clay Research Awards: Gross- Siebert Program 2016	award_overview_metadata Clay resource page; conceptual Reper abstraction only https://www.claymath.org/news/2016-clay-research-awards/	works=1 reper=1 edges=1 canonical_sources_csv
99	SRC-VILLANI-OPTIMAL- TRANSPORT-2009 mathematics	Cédric Villani	Optimal Transport: Old and New 2009	monograph Springer book metadata https://link.springer.com/book/10.1007/978-3-540-71050-9	works=1 reper=7 edges=6 canonical_sources_csv
100	SRC-VILLANI-TOPICS-OT-2003 mathematics	Cédric Villani	Topics in Optimal Transportation 2003	monograph AMS book metadata and table of contents https://www.ams.org/books/gsm/058/	works=1 reper=7 edges=9 canonical_sources_csv

101	SRC-HIL-GEOM mathematics	David Hilbert	The Foundations of Geometry 1899 / English edition	public_domain_text Project Gutenberg text/PDF/TeX https://www.gutenberg.org/ebooks/17384	works=0 reper=2 edges=0 canonical_sources_csv
102	SRC-BBI-METRIC- GEOMETRY-2001 mathematics	Dmitri Burago; Yuri Burago; Sergei Ivanov	A Course in Metric Geometry 2001	monograph AMS book metadata and table of contents https://bookstore.ams.org/gsm-33/	works=1 reper=8 edges=12 canonical_sources_csv
103	SRC-GHYS-DELAHARPE-1990 mathematics	Etienne Ghys; Pierre de la Harpe, editors	Sur les Groupes Hyperboliques d'apres Mikhael Gromov 1990	monograph Springer metadata https://link.springer.com/book/10.1007/978-1-4684-9167-8	works=1 reper=2 edges=2 canonical_sources_csv
104	SRC-CALABI-1957-KAHLER- VANISHING mathematics	Eugenio Calabi	On Kähler Manifolds with Vanishing Canonical Class 1957 / reprint metadata 2015	book_chapter_metadata metadata and bibliographic record; conceptual Reper abstraction only https://www.degruyterbrill.com/document/doi/10.1515/9781400879915-006/html	works=1 reper=3 edges=2 canonical_sources_csv
105	SRC-KLN-OL-ICOSAHEDRON mathematics	Felix Klein	Lectures on the Icosahedron and the Solution of Equations of the Fifth Degree 1884/1956/2003	bibliographic_record Open Library bibliographic record used for icosahedron/quintic Reper indexing https://openlibrary.org/works/OL3783640W/Lectures_on_the_icosahedron_and_the_solution_of_equations_of_the_fifth_degree	works=1 reper=2 edges=1 canonical_sources_csv
106	SRC-KLN-PG-EVANSTON mathematics	Felix Klein	The Evanston Colloquium: Lectures on Mathematics 1893	public_domain_text_record Project Gutenberg public-domain text record; lecture titles used as Reper nodes https://www.gutenberg.org/ebooks/36154	works=13 reper=17 edges=1 canonical_sources_csv
107	SRC-KLN-PG-RIEMANN-ALG mathematics	Felix Klein	Ueber Riemann's Theorie der Algebraischen Functionen 1882	public_domain_text_record Project Gutenberg record used for Riemann surfaces / algebraic function Reper indexing https://www.gutenberg.org/ebooks/20313	works=1 reper=2 edges=2 canonical_sources_csv
108	SRC-KLN-PG-ERLANGEN mathematics	Felix Klein	Vergleichende Betrachtungen über neuere geometrische Forschungen / Erlangen Program 1872/1893	public_domain_text_record Project Gutenberg public-domain text record used for metadata and title-level Reper extraction https://www.gutenberg.org/ebooks/38033	works=29 reper=32 edges=143 canonical_sources_csv
109	SRC-SANTAMBROGIO-OT-2015 mathematics	Filippo Santambrogio	Optimal Transport for Applied Mathematicians: Calculus of Variations, PDEs, and Modeling 2015	monograph Springer/Birkhäuser metadata https://link.springer.com/book/10.1007/978-3-319-20828-2	works=1 reper=7 edges=11 canonical_sources_csv
110	SRC-PERELMAN-2003- EXTINCTION mathematics	Grigori Perelman	Finite extinction time for the solutions to the Ricci flow on certain three-manifolds 2003	arxiv_preprint_metadata public arXiv preprint referenced by Clay/Kleiner-Lott; conceptual Reper abstraction only https://arxiv.org/abs/math/0307245	works=1 reper=5 edges=4 canonical_sources_csv
111	SRC-PERELMAN-2003-SURGERY mathematics	Grigori Perelman	Ricci flow with surgery on three-manifolds 2003	arxiv_preprint_metadata public arXiv preprint referenced by Clay/Kleiner-Lott; conceptual Reper abstraction only https://arxiv.org/abs/math/0303109	works=1 reper=10 edges=8 canonical_sources_csv
112	SRC-PERELMAN-2002-ENTROPY mathematics	Grigori Perelman	The entropy formula for the Ricci flow and its geometric applications 2002	arxiv_preprint_metadata public arXiv preprint referenced by Clay/Kleiner-Lott; conceptual Reper abstraction only https://arxiv.org/abs/math/0211159	works=1 reper=12 edges=9 canonical_sources_csv
113	SRC-CAO-1985-KRF mathematics	Huai-Dong Cao	Deformation of Kähler metrics to Kähler-Einstein metrics on compact Kähler manifolds 1985	journal_article_metadata EuDML metadata; conceptual Reper abstraction only https://eudml.org/doc/143260	works=1 reper=8 edges=7 canonical_sources_csv
114	SRC-BENAMOU-OT- NUMERICS-2021	Jean-David Benamou	Optimal transportation, modelling and numerical simulation	journal_article Cambridge Core metadata and	works=1 reper=5

	mathematics		2021	abstract https://www.cambridge.org/core/journals/acta-numerica/article/optim-al-transportation-modelling-and-numerical-simulation/D6D857468618B8EEE6F85FE197564E69	edges=11 canonical_sources_csv
115	SRC-BENAMOU-BRENIER-2000 mathematics	Jean-David Benamou; Yann Brenier	A computational fluid mechanics solution to the Monge-Kantorovich mass transfer problem 2000	journal_article bibliographic metadata https://doi.org/10.1007/s002110050002	works=1 repers=7 edges=9 canonical_sources_csv
116	SRC-CHEEGER-GROMOV-COLLAPSE-I-1986 mathematics	Jeff Cheeger; Mikhail Gromov	Collapsing Riemannian manifolds while keeping their curvature bounded. I 1986	journal_article NYU Scholar metadata https://nyuscholars.nyu.edu/en/publications/collapsing-riemannian-manifolds-while-keeping-their-curvature-bou-4	works=1 repers=8 edges=6 canonical_sources_csv
117	SRC-CHEEGER-GROMOV-COLLAPSE-II-1990 mathematics	Jeff Cheeger; Mikhail Gromov	Collapsing Riemannian manifolds while keeping their curvature bounded. II 1990	journal_article NYU Scholar metadata https://nyuscholars.nyu.edu/en/publications/collapsing-riemannian-manifolds-while-keeping-their-curvature-bou-3	works=1 repers=2 edges=2 canonical_sources_csv
118	SRC-CHEEGER-RONG-FSTRUCTURE-1996 mathematics	Jeff Cheeger; Xiaochun Rong	Existence of polarized F-structures on collapsed manifolds with bounded curvature and diameter 1996	journal_article bibliographic metadata https://eurekamag.com/research/097/708/097708247.php	works=1 repers=2 edges=1 canonical_sources_csv
119	SRC-LOTT-VILLANI-2009 mathematics	John Lott; Cédric Villani	Ricci curvature for metric-measure spaces via optimal transport 2009	journal_article Annals metadata and abstract https://annals.math.princeton.edu/2009/169-3/p04	works=1 repers=7 edges=8 canonical_sources_csv
120	SRC-MORGAN-TIAN-2007-CLAY mathematics	John W. Morgan; Gang Tian	Ricci Flow and the Poincaré Conjecture 2007	clay_monograph_resource Clay resource page and PDF; conceptual Reper abstraction only https://www.claymath.org/resource/ricci-flow-and-the-poincare-conjecture/	works=1 repers=4 edges=3 canonical_sources_csv
121	SRC-STURM-MM-I-2006 mathematics	Karl-Theodor Sturm	On the geometry of metric measure spaces. I 2006	journal_article bibliographic metadata and abstract https://doi.org/10.1007/s11511-006-0002-8	works=1 repers=7 edges=7 canonical_sources_csv
122	SRC-STURM-MM-II-2006 mathematics	Karl-Theodor Sturm	On the geometry of metric measure spaces. II 2006	journal_article bibliographic metadata and abstract https://doi.org/10.1007/s11511-006-0003-7	works=1 repers=7 edges=10 canonical_sources_csv
123	SRC-EUL-VAR mathematics	Leonhard Euler	Methodus inveniendi lineas curvas maximi minime proprietate gaudentes 1744	primary_historical_work calculus of variations source node; conceptual abstraction only https://eulerarchive.maa.org/	works=1 repers=0 edges=0 canonical_sources_csv
124	SRC-AGS-RCD-2014 mathematics	Luigi Ambrosio; Nicola Gigli; Giuseppe Savaré	Metric measure spaces with Riemannian Ricci curvature bounded from below 2014	journal_article SISSA metadata; Duke Math. J. reference https://www.math.sissa.it/publication/metric-measure-spaces-riemannian-ricci-curvature-bounded-below	works=1 repers=8 edges=10 canonical_sources_csv
125	SRC-BRIDSON-HAEFLIGER-CAT-1999 mathematics	Martin R. Bridson; André Haefliger	Metric Spaces of Non-Positive Curvature 1999	monograph Springer book metadata and chapter list https://link.springer.com/book/10.1007/978-3-662-12494-9	works=1 repers=8 edges=10 canonical_sources_csv
126	SRC-GROMOV-HYPERBOLIC-GROUPS-1987 mathematics	Mikhail Gromov	Hyperbolic Groups 1987	book_chapter Springer/MSRI volume metadata https://link.springer.com/book/10.1007/978-1-4613-9586-7	works=1 repers=13 edges=12 canonical_sources_csv
127	SRC-GROMOV-METRIC-STRUCTURES	Mikhail Gromov	Metric Structures for Riemannian and Non-Riemannian Spaces	book Springer metadata	works=1 repers=29

	mathematics		1981/1999/2007	https://link.springer.com/book/10.1007/978-0-8176-4583-0	edges=17 canonical_sources_csv
128	SRC-IBR-NEW-CONSERVATION-2007 mathematics	Nail H. Ibragimov	A new conservation theorem 2007	journal_article ScienceDirect abstract and metadata; no full text stored https://www.sciencedirect.com/science/article/pii/S0022247X06012455	works=1 repers=15 edges=10 canonical_sources_csv
129	SRC-IBR-TRANSFORMATION-GROUPS-1985 mathematics	Nail H. Ibragimov	Transformation Groups Applied to Mathematical Physics 1985	book Springer bibliographic record; no full text stored https://link.springer.com/book/9789027718471	works=1 repers=0 edges=0 canonical_sources_csv
130	SRC-IBR-CRC-HANDBOOK-V3 mathematics	Nail H. Ibragimov et al.	CRC Handbook of Lie Group Analysis of Differential Equations, Volume III 1995/2024	book Routledge/CRC description; no full text stored https://www.routledge.com/CRC-Handbook-of-Lie-Group-Analysis-of-Differential-Equations-Volume-III/Ibragimov/p/book/9780849394195	works=1 repers=3 edges=0 canonical_sources_csv
131	SRC-BOU-GENTOP mathematics	Nicolas Bourbaki	General Topology: Chapters 1-4 1995 / 2013 eBook	publisher_record metadata and table of contents only https://link.springer.com/book/10.1007/978-3-642-61701-0	works=1 repers=5 edges=4 canonical_sources_csv
132	SRC-BOU-LIE13 mathematics	Nicolas Bourbaki	Lie Groups and Lie Algebras: Chapters 1-3 1989 / 1998 reprint	publisher_record metadata and table of contents only https://link.springer.com/book/9783540642428	works=1 repers=3 edges=1 canonical_sources_csv
133	SRC-BOU-SETS mathematics	Nicolas Bourbaki	Theory of Sets 2004 English edition	publisher_record metadata and table of contents only https://link.springer.com/book/10.1007/978-3-642-59309-3	works=1 repers=4 edges=1 canonical_sources_csv
134	SRC-HAMILTON-1988-SURFACES mathematics	Richard S. Hamilton	The Ricci Flow on Surfaces 1988	conference_article_metadata bibliographic metadata; conceptual Reper abstraction only https://doi.org/10.1090/conm/071/954419	works=1 repers=5 edges=3 canonical_sources_csv
135	SRC-HAMILTON-1982-JDG-RICCI mathematics	Richard S. Hamilton	Three-manifolds with positive Ricci curvature 1982	journal_article_pdf_metadata Project Euclid/JDG PDF metadata and abstract lines; conceptual Reper abstraction only https://projecteuclid.org/journals/journal-of-differential-geometry/volume-17/issue-2/Three-manifolds-with-positive-Ricci-curvature/10.4310/jdg/1214436922.pdf	works=1 repers=10 edges=6 canonical_sources_csv
136	SRC-MATVEEV-PORTEGIES-GH-FLAT-2016 mathematics	Rostislav Matveev; Jacobus W. Portegies	Intrinsic Flat and Gromov- Hausdorff Convergence of Manifolds with Ricci Curvature Bounded Below 2016/2017	journal_article open access article metadata https://link.springer.com/article/10.1007/s12220-016-9742-7	works=1 repers=1 edges=1 canonical_sources_csv
137	SRC-YAU-1977-PNAS-CALABI mathematics	Shing-Tung Yau	Calabi's conjecture and some new results in algebraic geometry 1977	open_access_article_metadata PNAS/PMC open page; only short conceptual abstractions used https://pmc.ncbi.nlm.nih.gov/articles/PMC431004/	works=1 repers=1 edges=1 canonical_sources_csv
138	SRC-YAU-1978-CPAM-MONGE-AMPERE mathematics	Shing-Tung Yau	On the Ricci curvature of a compact Kähler manifold and the complex Monge-Ampère equation, I 1978	journal_article_metadata metadata via DOI/CiNii/CERN; conceptual Reper abstraction only https://doi.org/10.1002/cpa.3160310304	works=1 repers=15 edges=9 canonical_sources_csv
139	SRC-THURSTON-GT3M-MSRI mathematics	William P. Thurston	The Geometry and Topology of Three-Manifolds, electronic version 1.1 1980/2002	lecture_notes MSRI electronic version; conceptual seed only https://library2.msri.org/nonmsri/gt3m/PDF/Thurston-gt3m.pdf	works=1 repers=12 edges=11 canonical_sources_csv

140	SRC-THURSTON-BAMS-1982 mathematics	William P. Thurston	Three dimensional manifolds, Kleinian groups and hyperbolic geometry 1982	journal_article AMS metadata and PDF https://www.ams.org/bull/1982-06-03/S0273-0979-1982-15003-0/	works=1 reper=5 edges=4 canonical_sources_csv
141	SRC-THURSTON-PUP-1997 mathematics	William P. Thurston; Silvio Levy	Three-Dimensional Geometry and Topology, Volume 1 1997	book bibliographic metadata https://mitpressbookstore.mit.edu/book/9780691083049	works=1 reper=3 edges=1 canonical_sources_csv
142	SRC-BGP-ALEXANDROV-1992 mathematics	Yu. D. Burago; M. L. Gromov; G. Ya. Perelman	A. D. Alexandrov spaces with curvature bounded below 1992	journal_article MathNet metadata and English/Russian PDFs https://www.mathnet.ru/eng/rm4489	works=1 reper=8 edges=11 canonical_sources_csv
143	SRC-MACLANE-1971-1998 mathematics/category_theory	Saunders Mac Lane	Categories for the Working Mathematician 1971 / 1998	monograph Springer bibliographic page; no full text stored https://link.springer.com/book/10.1007/978-1-4757-4721-8	works=1 reper=7 edges=7 canonical_sources_csv
144	SRC-HIL-PG-PROBLEMS mathematics/foundations	David Hilbert	Mathematical Problems 1900 / English PG edition 1902	public_domain_text Project Gutenberg record; lecture before ICM Paris 1900 https://www.gutenberg.org/ebooks/71655	works=1 reper=8 edges=11 canonical_sources_csv
145	SRC-HIL-PG-GEOM mathematics/foundations	David Hilbert	The Foundations of Geometry 1899 / English PG edition	public_domain_text Project Gutenberg record; public domain in USA; metadata and Reper abstractions stored https://www.gutenberg.org/ebooks/17384	works=1 reper=10 edges=15 canonical_sources_csv
146	SRC-JAYNES-2003 mathematics/inference	E. T. Jaynes	Probability Theory: The Logic of Science 2003	monograph Cambridge bibliographic source; no full text stored https://doi.org/10.1017/CBO9780511790423	works=1 reper=7 edges=7 canonical_sources_csv
147	SRC-AMARI-2013 mathematics/information_geometry	Shun-ichi Amari	Information Geometry and Its Applications: Survey 2013	survey_chapter Springer bibliographic page; no full text stored https://doi.org/10.1007/978-3-642-40020-9_1	works=1 reper=7 edges=7 canonical_sources_csv
148	SRC-AMARI-NAGAOKA-2000 mathematics/information_geometry	Shun-ichi Amari; Hiroshi Nagaoka	Methods of Information Geometry 2000	monograph AMS bibliographic page; no full text stored https://bookstore.ams.org/MMONO/191	works=1 reper=7 edges=7 canonical_sources_csv
149	SRC-MACKAY-2003 mathematics/information_theory	David J. C. MacKay	Information Theory, Inference, and Learning Algorithms 2003	textbook author/public page; no bulk text stored https://www.inference.org.uk/mackay/itila/	works=1 reper=7 edges=7 canonical_sources_csv
150	SRC-COVER-THOMAS-2006 mathematics/information_theory	Thomas M. Cover; Joy A. Thomas	Elements of Information Theory, Second Edition 2006	textbook publisher page; no full text stored https://www.wiley-vch.de/en/areas-interest/computing-computer-sciences/elements-of-information-theory-978-0-471-24195-9	works=1 reper=7 edges=7 canonical_sources_csv
151	SRC-WEY-SYM mathematics/philosophy/physics	Hermann Weyl	Symmetry 1952 / 2016 Princeton edition	book_record metadata and publisher description only https://mitpressbookstore.mit.edu/book/9780691173252	works=1 reper=1 edges=1 canonical_sources_csv
152	SRC-IBR-MEMORY-SPRINGER mathematics/physics	Albert C. J. Luo; Rafail K. Gazizov (eds.)	Symmetries and Applications of Differential Equations: In Memory of Nail H. Ibragimov (1939-2018) 2021	memorial_volume_record metadata and thematic context only https://link.springer.com/book/10.1007/978-981-16-4683-6	works=1 reper=0 edges=0 canonical_sources_csv
153	SRC-PDE-CANON mathematics/physics	Canonical PDE corpus	Canonical PDE examples: heat, wave, Laplace, Poisson, transport, Burgers, Navier-Stokes classical corpus	canonical_examples formal examples generated as KLT nodes; no single copyrighted text used	works=7 reper=16 edges=8 canonical_sources_csv

154	SRC-WEY-GA-I mathematics/physics	Hermann Weyl	Gesammelte Abhandlungen I 1968 / 2014 reprint	nan collected_papers_record metadata and thematic use only https://link.springer.com/book/9783662438046	works=1 repers=5 edges=3 canonical_sources_csv
155	SRC-EUL-ARCH mathematics/physics	Leonhard Euler / Euler Archive	Euler Archive and Enestrom index: mechanics, calculus and variational works ongoing / historical corpus	scholarly_archive metadata and public historical works; no bulk text stored https://eulerarchive.maa.org/	works=2 repers=16 edges=2 canonical_sources_csv
156	SRC-IBR-NEW-CONSERVATION mathematics/physics	Nail H. Ibragimov	A new conservation theorem 2007	journal_article_record abstract and metadata only https://www.sciencedirect.com/science/article/pii/S0022247X06012455	works=1 repers=10 edges=11 canonical_sources_csv
157	SRC-IBR-NONLINEAR-SA mathematics/physics	Nail H. Ibragimov	Nonlinear self-adjointness and conservation laws 2011	preprint/article_record metadata and abstract-level use only https://arxiv.org/abs/1109.1728	works=1 repers=3 edges=3 canonical_sources_csv
158	SRC-IBR-TGAMP mathematics/physics	Nail H. Ibragimov	Transformation Groups Applied to Mathematical Physics 1985	publisher_record metadata and conceptual use only https://link.springer.com/book/9789027718471	works=1 repers=5 edges=4 canonical_sources_csv
159	SRC-IBR-CRC-I mathematics/physics	Nail H. Ibragimov et al.	CRC Handbook of Lie Group Analysis of Differential Equations, Volume I: Symmetries, Exact Solutions, and Conservation Laws 1993	publisher_record metadata and conceptual use only https://www.routledge.com/CRC-Handbook-of-Lie-Group-Analysis-of-Differential-Equations-Volume-I/Ames-Anderson-Dorodnitsyn-Ferapontov-Gazizov-Ibragimov-Svirshchevskii/p/book/9780849344886	works=1 repers=3 edges=1 canonical_sources_csv
160	SRC-IBR-CRC-III mathematics/physics	Nail H. Ibragimov et al.	CRC Handbook of Lie Group Analysis of Differential Equations, Volume III 1995/1996; 2024 eBook record	publisher_record metadata and conceptual use only https://www.routledge.com/CRC-Handbook-of-Lie-Group-Analysis-of-Differential-Equations-Volume-III/Ibragimov/p/book/9780849394195	works=1 repers=3 edges=0 canonical_sources_csv
161	SRC-ARN-METHODS mathematics/physics	V. I. Arnold	Mathematical Methods of Classical Mechanics 1989	publisher_record metadata and chapter-level conceptual use https://link.springer.com/book/10.1007/978-1-4757-2063-1	works=1 repers=10 edges=5 canonical_sources_csv
162	SRC-ARN-CELESTIAL mathematics/physics	Vladimir I. Arnold; Valery V. Kozlov; Anatoly I. Neishtadt	Mathematical Aspects of Classical and Celestial Mechanics 2006	publisher_record metadata and chapter-level conceptual use https://link.springer.com/book/10.1007/978-3-540-48926-9	works=1 repers=3 edges=0 canonical_sources_csv
163	SRC-KOLMOGOROV-1933 mathematics/probability	Andrey N. Kolmogorov	Grundbegriffe der Wahrscheinlichkeitsrechnung / Foundations of the Theory of Probability 1933 / 1950	monograph bibliographic source; no full text stored https://www.britannica.com/topic/Foundations-of-the-Theory-of-Probability	works=1 repers=7 edges=7 canonical_sources_csv
164	SRC-WILLIAMS- MARTINGALES-1991 mathematics/probability	David Williams	Probability with Martingales 1991	textbook bibliographic page; no full text stored https://www.cambridge.org/highereducation/isbn/9780511813658	works=1 repers=7 edges=7 canonical_sources_csv
165	SRC-NORRIS-1997 mathematics/probability	J. R. Norris	Markov Chains 1997	textbook Cambridge bibliographic page; no full text stored https://www.cambridge.org/core/books/markov-chains/contents/431718585A7BB0057F767A33630C54C	works=1 repers=7 edges=7 canonical_sources_csv
166	SRC-DOOB-1953 mathematics/probability	Joseph L. Doob	Stochastic Processes 1953	monograph bibliographic reference; no full text stored https://www.scirp.org/reference/referencespapers?	works=1 repers=7 edges=8 canonical_sources_csv

167	SRC-ETHIER-KURTZ-1986 mathematics/probability	Stewart N. Ethier; Thomas G. Kurtz	Markov Processes: Characterization and Convergence 1986	referenceid=610928 monograph bibliographic/DOI source; no full text stored https://doi.org/10.1002/9780470316658	works=1 reper=7 edges=7 canonical_sources_csv
168	SRC-BAYES-PRICE-1763 mathematics/probability	Thomas Bayes; Richard Price	An Essay towards solving a Problem in the Doctrine of Chances 1763	seminal_article metadata and DOI; no full text stored https://doi.org/10.1098/rstl.1763.0053	works=1 reper=7 edges=7 canonical_sources_csv
169	SRC-KLN-SPR-EMHS-I mathematics_education	Felix Klein	Elementary Mathematics from a Higher Standpoint, Vol. I: Arithmetic, Algebra, Analysis 1902-1908/2016	publisher_record Springer metadata and table of contents used for chapter-level Reper indexing https://link.springer.com/book/10.1007/978-3-662-49442-4	works=11 reper=14 edges=0 canonical_sources_csv
170	SRC-KLN-SPR-EMHS-II mathematics_education	Felix Klein	Elementary Mathematics from a Higher Standpoint, Vol. II: Geometry 1902-1908/2016	publisher_record Springer metadata and table of contents used for geometry Reper indexing https://link.springer.com/book/10.1007/978-3-662-49445-5	works=10 reper=11 edges=0 canonical_sources_csv
171	SRC-KLN-SPR-EMHS-III mathematics_education	Felix Klein	Elementary Mathematics from a Higher Standpoint, Vol. III: Precision and Approximation Mathematics 1902-1908/2016	publisher_record Springer metadata and table of contents used for precision/approximation Reper indexing https://link.springer.com/book/10.1007/978-3-662-49439-4	works=7 reper=9 edges=32 canonical_sources_csv
172	SRC-KLN-SPR-CONCEPTION mathematics_education	Gert Schubring	Klein's Conception of Elementary Mathematics from a Higher Standpoint 2018	open_access_secondary Open access historical/educational analysis used for elementarisation Reper calibration https://link.springer.com/chapter/10.1007/978-3-319-99386-7_12	works=1 reper=0 edges=0 canonical_sources_csv
173	SRC-NOE-INVARIANT mathematics_physics	Emmy Noether	Invariant Variation Problems 1918 / English 1971	journal_metadata metadata and abstract https://www.tandfonline.com/doi/abs/10.1080/00411457108231446	works=0 reper=2 edges=0 canonical_sources_csv
174	SRC-EUL-RB mechanics	Leonhard Euler	Rigid body mechanics and rotational equations source layer 1752/1765	primary_historical_work mechanics source node; conceptual abstraction only https://eulerarchive.maa.org/	works=1 reper=0 edges=0 canonical_sources_csv
175	SRC-LAG-MA mechanics/mathematics	Joseph-Louis Lagrange	Mecanique analytique 1788 / 1811-1815	primary_historical_work Open Library / Internet Archive metadata and scan access; no bulk text stored https://openlibrary.org/works/OL1794115W/Mecanique_analytique	works=2 reper=14 edges=6 canonical_sources_csv
176	SRC-HAM-DYN mechanics/mathematics	William Rowan Hamilton	On a General Method in Dynamics and Second Essay 1834-1835	primary_historical_work Trinity College historical mathematics page; no bulk text stored https://www.maths.tcd.ie/pub/HistMath/People/Hamilton/Dynamics/	works=2 reper=14 edges=7 canonical_sources_csv
177	SRC-KOL-TURB-CINII1941B physics	A. N. Kolmogorov	Dissipation of Energy in the Locally Isotropic Turbulence 1941	article_reference_record bibliographic metadata https://cir.nii.ac.jp/crid/1571698599752307456?lang=en	works=1 reper=2 edges=1 canonical_sources_csv
178	SRC-KOL-TURB-CINII1941A physics	A. N. Kolmogorov	The Local Structure of Turbulence in Incompressible Viscous Flow for Very Large Reynolds Numbers 1941	article_reference_record bibliographic reference record https://www.scrip.org/reference/referencespapers?referenceid=3704622	works=1 reper=2 edges=2 canonical_sources_csv
179	SRC-EIN-CPAE physics	Albert Einstein	The Collected Papers of Albert Einstein / Einstein Papers Project ongoing	scholarly_collection metadata and online volumes; no bulk text stored https://www.einstein.caltech.edu/w	works=0 reper=8 edges=0 canonical_sources_csv

180	SRC-EIN-CPAE-V11 physics	Albert Einstein	The Collected Papers of Albert Einstein, Vol. 11: Cumulative Index, Bibliography, List of Correspondence, Chronology, and Errata to Vols. 1-10 2009	hat-we-do/published-volumes official_index_volume research tool and bibliography to 1921 https://www.einstein.caltech.edu/w-hat-we-do/published-volumes/volume-11	works=0 repers=0 edges=0 canonical_sources_csv
181	SRC-EIN-CPAE-V13 physics	Albert Einstein	The Collected Papers of Albert Einstein, Vol. 13: The Berlin Years: Writings & Correspondence, Jan. 1922-Mar. 1923 2012	official_volume_record official volume record; no bulk text stored https://www.einstein.caltech.edu/w-hat-we-do/published-volumes/volume-13	works=2 repers=2 edges=0 canonical_sources_csv
182	SRC-EIN-CPAE-V14 physics	Albert Einstein	The Collected Papers of Albert Einstein, Vol. 14: The Berlin Years: Writings & Correspondence, Apr. 1923-May 1925 2015	official_volume_record official volume record; no bulk text stored https://www.einstein.caltech.edu/w-hat-we-do/published-volumes/volume-14	works=3 repers=3 edges=1 canonical_sources_csv
183	SRC-EIN-CPAE-V15 physics	Albert Einstein	The Collected Papers of Albert Einstein, Vol. 15: The Berlin Years: Writings & Correspondence, Jun. 1925-May 1927 2018	official_volume_record official volume record; no bulk text stored https://www.einstein.caltech.edu/w-hat-we-do/published-volumes/volume-15	works=2 repers=2 edges=2 canonical_sources_csv
184	SRC-EIN-CPAE-V16 physics	Albert Einstein	The Collected Papers of Albert Einstein, Vol. 16: The Berlin Years: Writings & Correspondence, Jun. 1927-May 1929 2021	official_volume_record official volume record; no bulk text stored https://www.einstein.caltech.edu/w-hat-we-do/published-volumes/volume-16	works=2 repers=2 edges=1 canonical_sources_csv
185	SRC-EIN-CPAE-V17 physics	Albert Einstein	The Collected Papers of Albert Einstein, Vol. 17: The Berlin Years: Writings & Correspondence, Jun. 1929-Nov. 1930 2024	official_volume_record official volume record; no bulk text stored https://www.einstein.caltech.edu/w-hat-we-do/published-volumes/volume-17	works=2 repers=2 edges=1 canonical_sources_csv
186	SRC-EIN-CPAE-V2 physics	Albert Einstein	The Collected Papers of Albert Einstein, Vol. 2: The Swiss Years: Writings, 1900-1909 1989	official_volume_record official volume record; no bulk text stored https://www.einstein.caltech.edu/w-hat-we-do/published-volumes/volume-2	works=10 repers=14 edges=9 canonical_sources_csv
187	SRC-EIN-CPAE-V4 physics	Albert Einstein	The Collected Papers of Albert Einstein, Vol. 4: The Swiss Years: Writings, 1912-1914 1995	official_volume_record official volume record; no bulk text stored https://www.einstein.caltech.edu/w-hat-we-do/published-volumes/volume-4	works=3 repers=3 edges=3 canonical_sources_csv
188	SRC-EIN-CPAE-V5 physics	Albert Einstein	The Collected Papers of Albert Einstein, Vol. 5: The Swiss Years: Correspondence, 1902-1914 1993	official_volume_record official correspondence volume record https://www.einstein.caltech.edu/w-hat-we-do/published-volumes/volume-5	works=0 repers=0 edges=0 canonical_sources_csv
189	SRC-EIN-CPAE-V6 physics	Albert Einstein	The Collected Papers of Albert Einstein, Vol. 6: The Berlin Years: Writings, 1914-1917 1996	official_volume_record official volume record; no bulk text stored https://www.einstein.caltech.edu/w-hat-we-do/published-volumes/volume-6	works=9 repers=11 edges=7 canonical_sources_csv
190	SRC-EIN-CPAE-V7 physics	Albert Einstein	The Collected Papers of Albert Einstein, Vol. 7: The Berlin Years: Writings, 1918-1921 2002	official_volume_record official volume record; no bulk text stored https://www.einstein.caltech.edu/w-hat-we-do/published-volumes/volume-7	works=1 repers=1 edges=1 canonical_sources_csv
191	SRC-EIN-EPP-HOME physics	Einstein Papers Project / Caltech	Einstein Papers Project home and corpus overview	official_corpus_overview reports current publication state	works=4 repers=5

			ongoing	and corpus scope https://www.einstein.caltech.edu/	edges=0 canonical_sources_csv
192	SRC-MAX-LOC-TREATISE-1873 physics	James Clerk Maxwell	A Treatise on Electricity and Magnetism 1873	book digitized Library of Congress digital item; metadata and public scans/PDF available https://www.loc.gov/item/03015568/	works=1 repers=6 edges=4 canonical_sources_csv
193	SRC-MAX-TREATISE physics	James Clerk Maxwell	A Treatise on Electricity and Magnetism 1873	library digitization Library of Congress digitized volumes https://www.loc.gov/item/03015568	works=0 repers=2 edges=0 canonical_sources_csv
194	SRC-MAX-PG-ELEMENTARY physics	James Clerk Maxwell	An Elementary Treatise on Electricity 1888/2023	public domain book Project Gutenberg item; used for experiment/demonstration Reper layer https://www.gutenberg.org/ebooks/69914	works=1 repers=1 edges=0 canonical_sources_csv
195	SRC-MAX-PG-FIVE-PAPERS physics	James Clerk Maxwell	Five of Maxwell's Papers Project Gutenberg release	public_domain_collection Project Gutenberg item; no bulk text stored in RBD https://www.gutenberg.org/ebooks/4908	works=0 repers=0 edges=0 canonical_sources_csv
196	SRC-MAX-CAM-SCI-PAPERS physics	James Clerk Maxwell	The Scientific Papers of James Clerk Maxwell 1890/2011	collected_papers Cambridge Core bibliographic record and chapter metadata; no full text stored in RBD https://www.cambridge.org/core/books/scientific-papers-of-james-clerk-maxwell/7DC8015FF24C8082C6A42A3B4531AF38	works=3 repers=5 edges=4 canonical_sources_csv
197	SRC-LL-MECH-ELSEVIER physics	L. D. Landau; E. M. Lifshitz	Mechanics: Course of Theoretical Physics, Volume 1 1976 / 1982 product record	publisher_record metadata and table of contents only https://shop.elsevier.com/books/mechanics/landau/978-0-08-050347-9	works=1 repers=3 edges=2 canonical_sources_csv
198	SRC-LL-STATPHYS-ELSEVIER physics	L. D. Landau; E. M. Lifshitz	Statistical Physics: Course of Theoretical Physics, Volume 5 1980	publisher_record metadata and table of contents only https://shop.elsevier.com/books/course-of-theoretical-physics/landau/978-0-08-023039-9	works=1 repers=3 edges=1 canonical_sources_csv
199	SRC-LL-CTP physics	L. D. Landau; E. M. Lifshitz; L. P. Pitaevskii; V. B. Berestetskii	Course of Theoretical Physics / 10-volume corpus 1951-1981 / later editions	textbook_series bibliographic and conceptual use; no full text stored https://mathshistory.st-andrews.ac.uk/Extras/Prefaces_Landau_Lifshitz/	works=8 repers=18 edges=2 canonical_sources_csv
200	SRC-NOBEL-EIN-1921 physics	Nobel Prize Outreach	The Nobel Prize in Physics 1921: Albert Einstein 1921/2026 page	official_award_record official Nobel Prize record https://www.nobelprize.org/prizes/physics/1921/summary/	works=0 repers=0 edges=0 canonical_sources_csv
201	SRC-V21-OPENSTAX-PHYS physics	OpenStax / Rice University	University Physics, Volumes 1-3 2016-ongoing	open_textbook web/PDF access through OpenStax https://openstax.org/books/university-physics-volume-1/pages/preface	works=1 repers=12 edges=12 canonical_sources_csv
202	SRC-DIRAC-NOBEL-1933 physics	P. A. M. Dirac	Nobel Prize in Physics 1933: Paul A. M. Dirac facts 1933/2026	biographical_reference Nobel Prize facts page used for historical anchoring of Dirac equation and positron https://www.nobelprize.org/prizes/physics/1933/dirac/facts/	works=0 repers=0 edges=0 canonical_sources_csv
203	SRC-DIRAC-MONOPOL-1931 physics	P. A. M. Dirac	Quantised Singularities in the Electromagnetic Field 1931	journal_article Bibliographic record / DOI; no full text stored https://doi.org/10.1098/rspa.1931.0130	works=1 repers=1 edges=1 canonical_sources_csv
204	SRC-DIRAC-LAGRANGIAN-1933	P. A. M. Dirac	The Lagrangian in Quantum	journal article reference	works=1

	physics		Mechanics 1933	Bibliographic reference; no full text stored https://www.scirp.org/reference/referencespapers?referenceid=2337819	repers=1 edges=1 canonical_sources_csv
205	SRC-DIRAC-PQM physics	P. A. M. Dirac	The Principles of Quantum Mechanics 1930	reference_metadata reference summary only https://www.britannica.com/topic/The-Principles-of-Quantum-Mechanics	works=0 repers=1 edges=0 canonical_sources_csv
206	SRC-DIRAC-PRINCIPLES-1930 physics	P. A. M. Dirac	The Principles of Quantum Mechanics 1930	book_reference Bibliographic reference; no full text stored https://www.scirp.org/reference/referencespapers?referenceid=4045640	works=1 repers=6 edges=4 canonical_sources_csv
207	SRC-DIRAC-QTHEORY-ELECTRON-1928 physics	P. A. M. Dirac	The Quantum Theory of the Electron 1928	journal_article Bibliographic record / DOI; no full text stored https://doi.org/10.1098/rspa.1928.0023	works=1 repers=4 edges=4 canonical_sources_csv
208	SRC-CHSW-1985-SUPERSTRINGS physics	Philip Candelas; Gary T. Horowitz; Andrew Strominger; Edward Witten	Vacuum configurations for superstrings 1985	journal_article_metadata publisher/institutional metadata; conceptual Reper abstraction only https://doi.org/10.1016/0550-3213(85)90602-9	works=1 repers=8 edges=4 canonical_sources_csv
209	SRC-FEY-HANDOUTS physics	Richard P. Feynman et al.	Original Course Handouts 1961-63 1961-1963 / online archive	course_archive historical documentation https://www.feynmanlectures.caltech.edu/info/FLP_Original_Course_Notes/index_content.html	works=0 repers=1 edges=0 canonical_sources_csv
210	SRC-FEY-FLP-TIPS physics	Richard P. Feynman; Michael A. Gottlieb; Ralph Leighton	Feynman's Tips on Physics — problem-solving supplement	official_toc included as future ingest source for problem-solving Reper extraction https://www.feynmanlectures.caltech.edu/TIPS_toc.html	works=0 repers=0 edges=0 canonical_sources_csv
211	SRC-FEY-FLP physics	Richard P. Feynman; Robert B. Leighton; Matthew Sands	The Feynman Lectures on Physics 1963-1965 / online edition	official_online_lectures free to read online; no bulk download https://www.feynmanlectures.caltech.edu/	works=0 repers=5 edges=0 canonical_sources_csv
212	SRC-FEY-FLP-OFFICIAL physics	Richard P. Feynman; Robert B. Leighton; Matthew Sands	The Feynman Lectures on Physics online edition 1963-1965 / online	official_online_lectures free to read online; next ingest stage https://www.feynmanlectures.caltech.edu/	works=0 repers=0 edges=0 canonical_sources_csv
213	SRC-FEY-FLP-HOME physics	Richard P. Feynman; Robert B. Leighton; Matthew Sands	The Feynman Lectures on Physics — official online edition 1963-1965 / online edition	official_online_lectures online reading edition; metadata and conceptual Reper abstractions stored https://www.feynmanlectures.caltech.edu/	works=0 repers=8 edges=1 canonical_sources_csv
214	SRC-FEY-FLP-V1 physics	Richard P. Feynman; Robert B. Leighton; Matthew Sands	The Feynman Lectures on Physics, Volume I — mainly mechanics, radiation, and heat 1963	official_toc chapter-level table of contents used for Reper indexing https://www.feynmanlectures.caltech.edu/I_toc.html	works=342 repers=342 edges=354 canonical_sources_csv
215	SRC-FEY-FLP-V2 physics	Richard P. Feynman; Robert B. Leighton; Matthew Sands	The Feynman Lectures on Physics, Volume II — mainly electromagnetism and matter 1964	official_toc chapter-level table of contents used for Reper indexing https://www.feynmanlectures.caltech.edu/II_toc.html	works=317 repers=317 edges=320 canonical_sources_csv
216	SRC-FEY-FLP-V3 physics	Richard P. Feynman; Robert B. Leighton; Matthew Sands	The Feynman Lectures on Physics, Volume III — quantum mechanics 1965	official_toc chapter-level table of contents used for Reper indexing https://www.feynmanlectures.caltech.edu/III_toc.html	works=158 repers=158 edges=163 canonical_sources_csv
217	SRC-FEY-FLP-HANDOUTS physics	The Feynman Lectures Website / Caltech	Original Course Handouts 1961-63 — menu	official_course_material_menu handouts and summaries menu	works=0 repers=0

			1961-1963	used to plan lab/problem/teaching Reper layer https://www.feynmanlectures.caltech.edu/info/FLP_Original_Course_Notes/contents.html	edges=0 canonical_sources_csv
218	SRC-FEY-FLP-INFO physics	The Feynman Lectures Website / Caltech	The Feynman Lectures on Physics — online edition information and rights note online edition	rights_notice states online reading access and download restriction https://www.feynmanlectures.caltech.edu/info/flp.html	works=0 repers=0 edges=0 canonical_sources_csv
219	SRC-MAN-OSC physics	Л. И. Мандельштам	Лекции по колебаниям 1957/1972 editions	archive_record bibliographic/archive record https://libarch.nmu.org.ua/handle/GenofondUA/40302	works=0 repers=3 edges=0 canonical_sources_csv
220	SRC-MAN-OPT-URSS physics	Л. И. Мандельштам	Лекции по оптике, теории относительности и квантовой механике 1972	book_record book description and bibliographic use only https://urss.ru/cgi-bin/db.pl?id=20563&lang=Ru&page=Book	works=1 repers=3 edges=1 canonical_sources_csv
221	SRC-MAN-OPTRELQM physics	Л. И. Мандельштам	Лекции по оптике, теории относительности и квантовой механике 1972	archive_record bibliographic/archive record https://libarch.nmu.org.ua/handle/GenofondUA/29042	works=0 repers=2 edges=0 canonical_sources_csv
222	SRC-MAN-OSC-NLRS physics	Л. И. Мандельштам	Лекции по теории колебаний 1972	library_record open library bibliographic record; no bulk text stored https://nlrs.ru/open/53090	works=1 repers=5 edges=3 canonical_sources_csv
223	SRC-MAN-COMPLETE-RNEB physics	Л. И. Мандельштам	Полное собрание трудов 1947-1955	national_library_record bibliographic use only https://rusneb.ru/catalog/000199_00009_005021715/	works=1 repers=2 edges=2 canonical_sources_csv
224	SRC-YM-1954 physics/gauge theory	C. N. Yang; R. L. Mills	Conservation of Isotopic Spin and Isotopic Gauge Invariance 1954	peer_reviewed_primary_paper APS abstract and DOI metadata; no article text copied https://journals.aps.org/pr/abstract/10.1103/PhysRev.96.191	works=1 repers=14 edges=9 canonical_sources_csv
225	SRC-WEY-RZM physics/geometry	Hermann Weyl	Raum · Zeit · Materie / Space-Time-Matter 1918 / modern commentary	classic_monograph_commentary open access commentary; conceptual use https://link.springer.com/article/10.1365/s13291-025-00298-6	works=1 repers=4 edges=2 canonical_sources_csv
226	SRC-EIN-CPAE-V12 physics; relativity	Albert Einstein	Four Princeton Lectures on Relativity / The Meaning of Relativity; The Meaning of Relativity / Princeton Lectures 1921	derived_volume_id volume-level ID found in works/repers; canonical parent is preserved in sources.csv	works=1 repers=1 edges=0 derived_from_works_or_repers
227	SRC-EIN-CPAE-V3 physics; relativity	Albert Einstein	On the Influence of Gravitation on the Propagation of Light; Über den Einfluß der Schwerkraft auf die Ausbreitung des Lichtes 1911	derived_volume_id volume-level ID found in works/repers; canonical parent is preserved in sources.csv	works=1 repers=1 edges=1 derived_from_works_or_repers
228	SRC-NEW-PRINCIPIA physics_mathematics	Isaac Newton	Newton's Principia: The Mathematical Principles of Natural Philosophy 1687 / English 1846	public_domain_text Project Gutenberg text https://www.gutenberg.org/ebooks/76404	works=0 repers=2 edges=0 canonical_sources_csv
229	SRC-KLT-V19-GATE rbd_acceptance_gate	Ivan Borisovich Kurpishev / editorial build	KLT-RBD v1.9 acceptance gate and rollback transaction 2026	internal_spec project-internal generated artifact internal://klt-rbd/v1.9/gate	works=2 repers=16 edges=14 canonical_sources_csv
230	SRC-CROSSREF-REST scholarly_graph	Crossref	Crossref REST API documentation current	api_documentation public API documentation https://www.crossref.org/documentation/retrieve-metadata/rest-api/	works=1 repers=4 edges=2 canonical_sources_csv
231	SRC-DATACITE-REST scholarly_graph	DataCite	DataCite REST API current	api_documentation public API documentation https://support.datacite.org/docs/api	works=1 repers=4 edges=2 canonical_sources_csv
232	SRC-OPENCITATIONS	OpenCitations	OpenCitations Corpus	open_citation_corpus	works=1

	scholarly_graph		current	public RDF citation data https://opencitations.net/corpus	repers=4 edges=2 canonical_sources_csv
233	SRC-OPENALEX-WORKS scholarly_graph	OurResearch / OpenAlex	OpenAlex Works API documentation current	api_documentation public API documentation https://docs.openalex.org/api-entities/works	works=1 repers=5 edges=2 canonical_sources_csv
234	SRC-SEMANTIC-SCHOLAR-API scholarly_graph	Semantic Scholar	Semantic Scholar Academic Graph API current	api_documentation public API and datasets https://www.semanticscholar.org/product/api	works=1 repers=5 edges=2 canonical_sources_csv
235	SRC-ARXIV-API scholarly_graph	arXiv	arXiv API / search interface current	api_documentation public API documentation https://info.arxiv.org/help/api/index.html	works=0 repers=3 edges=0 canonical_sources_csv
236	SRC-KLT-V19-HOSTING static_hosting	Ivan Borisovich Kurpishev / editorial build	Short-name hosting micro-package for RBD connector 2026	internal_spec aligned with short site structure internal://klt-rbd/v1.9/hosting	works=2 repers=7 edges=6 canonical_sources_csv
237	SRC-KLT-V19-STATICAPI static_json_api	Ivan Borisovich Kurpishev / editorial build	KLT-RBD v1.9 static JSON API for ordinary hosting 2026	internal_spec static host compatible internal://klt-rbd/v1.9/static-api	works=1 repers=9 edges=8 canonical_sources_csv
238	SRC-KLT-V19-TESTS validation_tests	Ivan Borisovich Kurpishev / editorial build	KLT-RBD v1.9 smoke tests and package validation 2026	internal_spec project-internal generated artifact internal://klt-rbd/v1.9/tests	works=1 repers=5 edges=4 canonical_sources_csv

5. Source-ID audit / Аудит source_id

Two volume-level identifiers appear in works/reperers outside sources.csv. They are preserved in the audit register and tied back to the canonical Einstein collected corpus row.

source_id	author	title	works	reperers
SRC-EIN-CPAE-V12	Albert Einstein	Four Princeton Lectures on Relativity / The Meaning of Relativity; The Meaning of Relativity / Princeton Lectures	1	1
SRC-EIN-CPAE-V3	Albert Einstein	On the Influence of Gravitation on the Propagation of Light; Über den Einfluß der Schwerkraft auf die Ausbreitung des Lichtes	1	1

6. Machine files in this package

RBD_FULL_BIBLIOGRAPHIC_SOURCE_REGISTER_v4_6.csv/json

RBD_FULL_WORK_SOURCE_UNITS_1145_v4_6.csv

RBD_REPER_EXTRACTION_SOURCE_MAP_2212_v4_6.csv

RBD_SOURCE_SUMMARY_BY_DOMAIN_v4_6.csv

RBD_BIBLIOGRAPHIC_SOURCE_REGISTER_v4_6.bib

source_of_truth/rbd_atlas/*.csv/jsonl