



EDP Sciences-SMAI Subscribe to Open program 2025 Transparency Report

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EDP Sciences-SMAI Subscribe to Open program

2025 Transparency Report July 2026



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Key points

- The EDP Sciences-SMAI Subscribe to Open program enabled the publication of 6 journals in open access without author publication charges continuously since 2021. Open access publication was maintained throughout 2025.
- This report is the fifth transparency report published for the program, providing financial information and other metrics for librarians and other stakeholders to make well-informed decisions.
- Additional sources of funding for the program include the second French national open access agreement (2022-2026), as well as contributions from individual and institutional supporters. Since 2023, we acknowledge a spontaneous contribution from the CERMICS, Centre d'Enseignement et de Recherche en Mathématiques et Calcul Scientifique, which was also renewed in 2024 and 2025 and is expected to be recurrent. See [this page](#) for the full list of individual and institutional supporters over the years.
- EDP Sciences is committed to maintaining fair subscription prices and moderate annual price increases. In 2023, 2024 and 2025, the subscription price for the journals increased by 2% per year.
- Traditional library subscriptions remain the main source of revenue, covering 55.7% of the total publication costs for the six journals in 2025.
- In 2025, the six journals combined published 456 articles, compared with 481 articles in 2024 and 449 articles in 2023, confirming a broadly stable publication volume. Accepted articles are published continuously throughout the year.
- The average publication cost for the mathematics journals at EDP Sciences is approximately €800 per article in 2025, with variations depending on the journal, article volume, page extent and services provided. This is lower than the previous estimate of around €950 per article, largely because publication volumes have been higher and more stable since 2024. A breakdown of publication costs is provided below.
- The portfolio of mathematics journals published by EDP Sciences has been in financial deficit for several years. However, the financial situation has improved since the transition to open access under the Subscribe to Open model, through additional subscriptions, complementary sources of funding and continued efforts to control publication costs. In 2025, total revenue covered 76.1% of publication costs, including 55.7% from traditional subscriptions, 19.7% from the French national open-access agreement and 0.7% from exceptional support. The remaining costs are currently absorbed within the mathematics portfolio and, where applicable, supported by complementary funding sources. This position is reviewed annually, with the objective of further reducing the remaining funding gap.
- Content usage increased strongly between 2023 and 2025, rising from 436,655 full-text downloads in 2023 to 1,664,775 in 2025. This growth should be interpreted with caution, as part of the increase may be linked to automated traffic. EDP Sciences is therefore strengthening traffic filtering and readership analysis to provide more reliable usage indicators.
- Data and code sharing is increasing across the mathematics portfolio. Since the introduction of a portfolio-wide policy in 2023, the number of articles reporting deposits in a public repository has tripled, from 15 in 2023 to 45 in 2025.
- An Advisory Committee oversees and advises the EDP Sciences-SMAI Subscribe to Open initiative, including representatives of the major stakeholders and funders of the program. EDP Sciences and SMAI also participate in the international S2O Community of Practice.



EDP Sciences-SMAI Subscribe to Open program

EDP Sciences is a reputed publishing house in Science and Technology, based in France. The [Society of Applied and Industrial Mathematics \(SMAI\)](#) is a French learned society. We have been partners for the publication of applied mathematics journals for about 20 years. For the last 6 years, we have implemented a [Subscribe to Open program \(S2O\)](#) to transition the journals that we co-publish to open access.

SMAI and EDP Sciences are very pleased to share this fifth Transparency Report in 2025. As advocates of open science, we support the principle of transparency of costs and prices, and we have led the way in the S2O community by demonstrating our commitment to transparency through the publication of these reports. As with the last four reports, we provide a range of financial and other information which we hope will be of interest to librarians who are supporting the program, and other parties. For more information on the EDPS-SMAI S2O program, see the [FAQs](#) or download the [leaflet](#). The [2021 Transparency Report](#), [2022 Transparency Report](#), [2023 Transparency Report](#) and [2024 Transparency Report](#) are also still available to download. More detailed information is available to interested libraries on request.

A journal publishing under a Subscribe to Open model will publish its content in open access if sufficient subscriptions have been renewed at the end of the renewal period. If subscription renewal targets are not met, the content remains, or reverts to being accessible to subscribers only. In our implementation of the model, if sufficient subscriptions have been renewed, articles are published under a CC-BY license, and authors retain the copyright, for one year from the time of the announcement. The situation is reviewed every year.

Definitions pertaining to the EDPS-SMAI S2O program are provided in the Appendix of this report.

Journals involved

The maths portfolio published under the S2O model includes 6 journals. All journals are published in partnership by EDPS and SMAI, except *RAIRO – Theoretical Informatics and Applications* (RAIRO-ITA) which is published by EDPS only. Although not co-published by SMAI, RAIRO-ITA is included in the EDPS-SMAI S2O program and benefits from its mutualized resources.

EDPS and SMAI also publish together [ESAIM: Proceedings and Surveys](#) (ESAIM:PS) which has been in “diamond” open access since launch, i.e. published in open access without author charges. The journal publishes mainly conference proceedings. Production costs are covered by conference organizers. This journal is not included in the EDPS-SMAI S2O program.

Following the conclusion of the 2025 subscription renewal campaign, all journals in the portfolio were published in open access under the Subscribe to Open (S2O) model in 2025. This was announced on 16 April 2025 in the context of EDP Sciences’ “Road to Open” communications (see [press release](#)). The 2025 renewal cycle proved more challenging than in previous years. This reflected a combination of budget pressures, natural attrition and broader economic uncertainty affecting library purchasing decisions. Despite these challenges, the continued support of libraries, institutions and the wider mathematics community enabled the journals to remain open access.

This marked a fifth consecutive year of uninterrupted open access publication for the six journals in the EDPS-SMAI S2O programme.

The 6 mathematics journals currently taking part in the S2O program are listed in **Table 1**.

Table 1. Journals involved in the EDPS-SMAI S2O program, and years published in open access (OA) vs. subscription (subs).

Journal full name and link	Short name	Year joining S2O program	Year published in open access					
			2020	2021	2022	2023	2024	2025
Mathematical Modelling of Natural Phenomena	MMNP	2020	OA	OA	OA	OA	OA	OA
ESAIM: Control Optimisation & Calculus Variations	ESAIM:COCV	2021	subs	OA	OA	OA	OA	OA
ESAIM: Mathematical Modelling & Numerical Analysis	ESAIM:M2AN	2021	subs	OA	OA	OA	OA	OA
ESAIM: Probability & Statistics	ESAIM:PS	2021	subs	OA	OA	OA	OA	OA
RAIRO - Operations Research	RAIRO-RO	2021	subs	OA	OA	OA	OA	OA
RAIRO - Theoretical Informatics and Applications	RAIRO-ITA	2021	subs	OA	OA	OA	OA	OA

Evolution of subscription prices

EDP Sciences is committed to fair subscription prices, and fair price increases. Typical year-on-year increases vary from 0 to 3%.

In 2021, EDP Sciences froze subscription prices over its entire portfolio of journals in the context of the COVID pandemic (see [press release](#)). This was the first year of open access publication under the S2O model.

In 2022, we applied a more substantial price increase of 5% across the portfolio of maths journals. This followed a 0% price increase for two years in a row in 2020 and 2021 (apart from *RAIRO-RO*, see above). The price increase was necessary to compensate for strong journal growth in the past years, and faster publication times since we eliminated the backlog of articles in production. There was a high inflation rate of +5.2% in France in 2022 (source [INSEE.fr](#)).

In 2023, 2024 and in 2025, moderate price increases of 2% were applied each year across the portfolio, reflecting inflation.

Table 2. Evolution of subscription prices in € since 2019***. Last column: Price of the package of 6 journals commercialized by Knowledge Unlatched.

Year	MMNP	ESAIM: COCV	ESAIM: M2AN *	ESAIM: PS	RAIRO-RO	RAIRO-ITA	Package of 6 journals (KU)
2019	€353	€389	€996 (O) €1487 (P+O)	€226	€449	€429	–
2020	€360	€389	€996 (O) €1487 (P+O)	€226	€499**	€429	–
2021	€360	€389	€996 (O) €1487 (P+O)	€226	€499	€429	–
2022	€378	€408	€1046 (O) €1562 (P+O)	€237	€524	€450	€3050
2023	€385	€415	€1066 (O) €1593 (P+O)	€241	€533	€458	€3111
2024	€393	€424	€1088 (O) €1625 (P+O)	€246	€544	€468	€3173
2025	€401	€432	€1110 (O) €1657 (P+O)	€251	€555	€477	€3236
Average increase 2019-2025	2.1%	1.8%	1.8% (O) 1.8% (P+O)	1.8%	3.6%	1.8%	

* ESAIM:M2AN is the only journal offering a print edition (P+O: print + online, O: online). Other figures are for online subscriptions only.

** From 2020, the number of issues published in RAIRO-RO went from 5 to 6 issues per year. The subscription price increased exceptionally by €50 in 2020.

*** The prices listed exclude Value Added Tax. VAT rate is 2.1% for all journals, except RAIRO-ITA with a VAT rate of 20% since 2024 (Commission Paritaire des Publications et Agences de Presse).

The prices indicated in **Table 2** are the list prices for single-site institutions communicated on the EDPS website and to the subscription agencies. For the full 2025 subscription price list please see https://publications.edpsciences.org/doc_journal/librarian/2025_price_list.pdf.

In the last column of **Table 2**: Knowledge Unlatched (KU) commercializes 3-year subscriptions to the package of 6 maths journals in S2O on a rolling basis. Institutions subscribing to the package via KU are guaranteed no price increase for 3 years. For current prices, see <https://knowledgeunlatched.org/stem/>. See below for more details on the partnership with KU.

Average price increases since the beginning of the S2O program are approximately 2% per year, apart from a higher increase for RAIRO-RO in 2020 (RAIRO-RO went from 5 to 6 issues per volume in 2020 to publish more articles and decrease the backlog).

Within the portfolio, ESAIM:M2AN is the only journal offering a print edition, while other journals publish an online version only. RAIRO-RO and ESAIM:M2AN publish 6 issues per volume, while the other journals with an electronic only version have ceased to publish individual issues and instead publish a single “open volume” per year.

Publication statistics

Number of articles and pages published

Table 3a. Number of articles published per journal per year. *(In italics: including articles published in Supplements in 2021 to prepare for the S2O transition)*

Year	MMNP	ESAIM: COCV	ESAIM: M2AN	ESAIM: PS	RAIRO- RO	RAIRO- ITA	Total
2019	47	85	76	38	110	9	365
2020	79	127	80	42	99	7	434
2021	59	109 <i>(141)</i>	102 <i>(138)</i>	17	190 <i>(340)</i>	13	490 <i>(708)</i>
2022	45	82	80	17	215	9	448
2023	37	89	120	26	165	12	449
2024	23	91	82	17	249	19	481
2025	29	102	114	15	175	21	456

Table 3b. Number of pages published per journal per year. *(In italics: including articles published in Supplements in 2021 to prepare for the S2O transition)*

Year	MMNP	ESAIM: COCV	ESAIM: M2AN	ESAIM: PS	RAIRO- RO	RAIRO- ITA	Total
2019	884	2515	2158	990	1961	206	8714
2020	1518	3616	2378	1002	1888	91	10493
2021	1168	3221 <i>(4211)</i>	3111 <i>(4130)</i>	459	3842 <i>(6892)</i>	219	12020 <i>(17079)</i>
2022	996	2531	2335	527	4361	123	10873
2023	784	2677	3666	935	3234	216	11512
2024	495	2860	2369	391	5453	293	11861
2025	731	3365	3322	493	3974	318	12203

In 2021, in preparation for the transition to open access, we published the backlog of 3 journals (ESAIM: COCV, ESAIM: M2AN, and RAIRO-RO) in the form of supplements. This was partly funded by the grant from the Fonds National pour la Science Ouverte (FNSO), see below. From 2021, we also lifted the limits in the number of pages published per year. Articles are published as soon as possible after acceptance and there is currently no significant backlog. The number of articles published over the whole portfolio in 2022 and 2023 is stable.

Articles published in our maths journals are of considerable length and the average length has tended to increase over time. For example, between 2019 and 2023, the average length of an article published in ESAIM:M2AN went from 28.4 to 30.6 pages/article.

Subscription price per article

The number of articles and pages published per year can be put in parallel with subscription prices and yearly price increases. Statistics on subscription price per article published can be used to benchmark our journals with similar journals published by other publishers.

Table 4. Subscription price per article published (€/article). The subscription price per article is calculated on the basis of the institutional subscription price for the electronic edition. In 2021, the number of articles considered is the number of articles outside of the supplements published in 2021 for ESAIM:COCV, ESAIM:M2AN and RAIRO-RO.

Year	MMNP	ESAIM: COCV	ESAIM: M2AN	ESAIM: PS	RAIRO-RO	RAIRO-ITA
2019	7.5	4.6	13.1	5.9	4.1	47.4
2020	4.6	3.1	12.4	5.4	5.0	61.3
2021	6.1	3.6	9.8	13.3	2.6	33.0
2022	8.6	5.5	13.3	14.2	2.5	50.9
2023	10.6	4.8	9.1	9.5	3.3	39.0
2024	17.1	4.7	13.3	14.5	2.2	24.6
2025	13.8	4.2	9.7	16.7	3.2	22.7

The higher subscription price per article for RAIRO-ITA is due to the low volume of articles currently published by the journal (approximately 10 per year). Part of the publication costs are fixed and do not depend on the number of articles published. This makes low volume journals more expensive to produce.

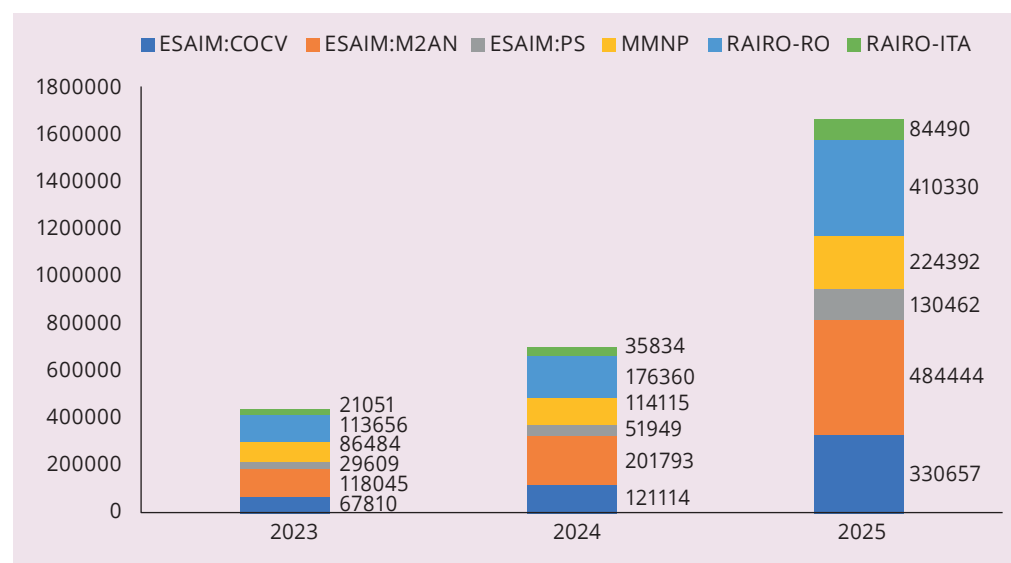
Regular increases in subscription prices are necessary as journals grow in number of articles and pages published, and to cover increased costs due to general inflation. Inflation rates in France were +5.2% in 2022, +4.9% in 2023, +2.0% in 2024 and +0.9% in 2025 (Source [INSEE](#)). The subscription price increases applied by EDPS/SMAI to the maths journals portfolio has been very moderate with regard to these two factors, providing good value for subscribers.

Article downloads

We subscribe to ScholarlyIQ to generate statistics on usage of different article formats from EDP Sciences' publication platform. These usage statistics are [COUNTER-5 compliant](#).

Between 2023 and 2025, content usage increased significantly across the portfolio. Over the whole portfolio, the full-text downloads went from 436,655 in 2023 to 701,165 in 2024 and 1,664,775 in 2025, see Figure 1. This increase does not necessarily reflect a rise in genuine readership, as some of the additional traffic is likely to come from bots and AI-driven automated queries. EDP Sciences is therefore improving its traffic filtering and readership analysis to provide a clearer picture of genuine usage.

Figure 1. Total article downloads in all formats from EDP Sciences platform, 2023-2025.



S2O subscription renewal campaigns

The previous [2024 Transparency Report](#) reported partial subscription renewal figures for 2024 at the end of February 2024, compared to subscriptions collected during the full baseline year 2020. In **Table 5**, we update these by reporting full-year subscription data for both 2024 and 2025, including late subscriptions received throughout each year.

Table 5. Evolution of % traditional subscriptions renewed in 2021-2025 compared with the full 2020 year (baseline year). Highlighted: 95% renewal target reached.

	2021 Full year	2022 Full year	2023 Full year	2024 Full year	2025 Full year
ESAIM : COCV	93,7	98,7	105,1	112,66	107,59
RAIRO-ITA	91,7	104,2	110,4	129,17	106,25
ESAIM : M2AN (P+O)*	97,4	76,9	71,8	53,85	35,90
ESAIM : M2AN (O)	91,5	98,8	102,4	110,98	102,44
MMNP	100,0	132,1	153,6	189,29	146,43
ESAIM : PS	100,0	120,9	130,2	146,51	116,28
RAIRO-RO	88,6	106,8	113,6	131,82	109,90

* ESAIM:M2AN is the only journal offering a print edition in 2021 (P+O: print + online, O: online). Other figures are for online subscriptions only.

In 2021, 3 of the 6 journals reached over 95% renewals by the end of the year, while 4 journals were still below 95% renewals. Since 2022, all journals are reaching or exceeding 95% renewals by the end of the year. This is in regular progression year on year, except for the print+online version of ESAIM:M2AN.

In 2022, two factors helped to recover subscriptions: the end of the COVID pandemic which had affected library budgets and resulted in delayed renewals, and the partnership with Knowledge Unlatched which allowed us to increase the number of subscribers to the package of 6 maths journals and reach new subscribers supportive of the S2O model.



Since 2022, the percentage of renewals is in regular progression year on year, and from 2023 it reached or exceeded 100% for all journals. The notable exception is subscriptions to the print+online version of ESAIM : M2AN which decreases year on year.

NB: The term “subscription renewal” is a misnomer. It represents the combination of renewal of existing subscriptions, and new subscriptions. For our portfolio, new subscriptions are mainly coming from the partnership with Knowledge Unlatched (KU), see below. Over 100% subscription renewals mean that there were more subscriptions to the journal in a given year than in the baseline year 2020.

The renewal figures for 2023, 2024 and 2025 indicate that the mathematics library community continues to support the S2O model, which enables open access without requiring authors to pay publication fees. At the same time, the decrease in renewals observed in 2025 underlines the need for continued efforts to maintain this support. The case of ESAIM: COCV, for which SMAI’s involvement was instrumental in allowing the journal to remain in S2O, illustrates the importance of close community engagement for the sustainability of the model. This is important for the long-term sustainability of the S2O open access model for these journals, as traditional subscriptions constitute the largest revenue source for the journals (see **Figure 2**). This is due in great part to the engagement of the mathematics community, particularly in France, towards open access models not relying on author charges. We provide in addition reserved benefits for subscribers. Several years of archive content, and forthcoming articles ahead of publication, are available for subscribers only (see Appendix).

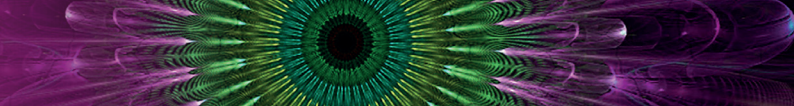
The relatively high percentage of subscription renewals also reflects the fact that the baseline number of subscriptions for the maths journals was low to start with.

Revenue sources

Traditional subscriptions

Traditional subscriptions remain the main revenue source supporting the S2O model for the mathematics journals. As shown in Table 5, subscription renewals provide the clearest indication of institutional engagement over time and are therefore the main indicator used to assess the sustainability of the model.

Subscription turnover is also monitored internally, but it needs to be viewed in context. Its evolution reflects not only the number of renewed subscriptions, but also annual price adjustments, changes in subscription packages, and the relatively low 2020 baseline for some journals. It should therefore not be read as an indication of increased profitability, particularly as publication volumes and operating costs have also increased over the same period. For this reason, the report focuses on the evolution of renewed subscriptions rather than indexed turnover.



Partnership with Knowledge Unlatched

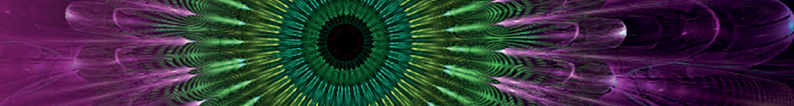
Considering the natural rate of attrition of subscriptions year-on-year before the introduction of the S2O model, the exceptional economic circumstances of the pandemic years, the risk of “free-riding” related to the Subscribe to Open model, and the pre-existing financial deficit of the maths journals portfolio, we recognized that we needed additional sales resources for the maths portfolio. For this, EDP Sciences turned to Knowledge Unlatched (KU), and concluded a 3-year agreement (2022-2024) in the spring of 2021, see [press release](#). This was extended in March 2023 for a further 3 years (2025-2027). The partnership with KU concerns exclusively the sale of the package of the 6 maths journals to institutions. This can be in the form of “upselling” the full package to institutions already subscribing to one or more journals, or of selling the full package to institutions that were not already subscribers in 2021. KU subscribers commit to subscribing to the whole portfolio of journals for 3 years. They subscribe at the price listed in the first year and are guaranteed no price increase for 3 years. New pledging campaigns are launched by KU every year.

EDP Sciences, together with its historical subscription agencies continues to handle individual journal subscriptions (subscriptions for one year only). EDP Sciences is also handling negotiations with consortia such as Couperin, see French national open access agreement below.

Our partnership with KU has significantly increased the number of institutions subscribing to the portfolio, which was relatively low to start with. These institutions are active supporters of S2O. In addition, the fact that they subscribe for a 3-year period brings longer term visibility for the program. Subscriptions secured by KU are reported under “traditional subscriptions” in this report. It should also be noted that KU underwent an organisational transition in 2025, following its acquisition by Annual Reviews. This development may bring positive opportunities in the longer term, but its timing during the renewal campaign may have introduced some short-term disruption to sales activity for the maths portfolio.

French national open access agreement

Apart from traditional subscriptions, yearly revenue for the maths journals also includes the French national open access agreement. This is a transformative agreement (“Read & Publish”) including read access to EDP Sciences journals for participating institutions, and the possibility for their corresponding authors to publish in open access in these journals free of charge. The first national agreement (2017-2021) predated the start of the S2O program at EDP Sciences. The partners of the agreement welcomed the transition of the maths journals to open access under the S2O model. Indeed, this is an ideal outcome for “transformative” agreements which are designed to help journals transition from subscription to full open access. The Subscribe to Open model plays a more prominent role in the second national agreement (2022-2026) and has become an important pillar of the new agreement. See [press release](#).



The parties to the French national open access agreement are:

- EDP Sciences
- “Publish” aspect: The MESR (Ministère de l’Enseignement Supérieur et de la Recherche) pilots the “[Plan de soutien à l’édition scientifique française](#)”, which allocates funding for open access publication and platforms. It supports EDP Sciences as well as French open access platforms such as OpenEdition.
- “Read” aspect: [Couperin](#) is a consortium of French institutions negotiating subscription deals with publishers worldwide. Negotiations were made centrally between EDP Sciences and Couperin, and each institution can then opt in independently to join the agreement.
- Abes (Agence Bibliographique de l’Enseignement Supérieur) is the judicial and financial administrator of the agreement.

For the “Read” aspect of the agreement, negotiations are conducted centrally by the Couperin consortium, and each institution can then opt-in independently to join the agreement. The current list of member institutions is available [here](#). Institutions that join the national agreement commit for the whole duration (5 years from 2022 to 2026) or the remaining duration of the agreement in case they join later. An annual subscription drive takes place every year in October. Subscriptions under the French national agreement are managed separately from other subscriptions by EDP Sciences. For this reason, these subscriptions are not reported in **Table 5** and **Table 6** which only report on “traditional” subscriptions. The revenue is however included in the balance of total revenue vs. publication costs, see **Figure 3**.

Individual and institutional supporters

In 2023, we acknowledged a spontaneous contribution from the CERMICS, Centre d’Enseignement et de Recherche en Mathématiques et Calcul Scientifique, which was also renewed in 2024 and 2025. See [this page](#) for the full list of individual and institutional supporters over the years.

Revenue vs. publication costs

Revenue

In this analysis, we take into account the following sources of revenue:

- “Traditional” subscription revenue, single-site and multi-site.
- “Read” and “Publish” parts of the [French national agreement](#) allocated to the maths journals.
- Exceptional support from laboratories and individuals in 2025.

Publication costs and breakdown

EDP Sciences and SMAI provide a dedicated editorial office for the journals ESAIM:M2AN, ESAIM:COCV, ESAIM:PS, RAIRO-RO. For the other journals, MMNP and RAIRO-ITA, EDP Sciences provides administrative services on the editorial platform but does not check submitted manuscripts or monitor the peer review process, which, for these journals, is the responsibility of the scientific Editors.



Differences in costs per article also depend on other services/products produced. For instance, as the only journal having a print version, ESAIM:M2AN is the only journal to incur printing and dispatch costs; RAIRO-ITA uses a proprietary editorial system whereas the other journals pay a license to use Editorial Manager (Aries), etc.

The average publication cost to publish an article in the maths portfolio is between €600 and €1200, depending on the journal and the year. In 2025, we consider an average cost per article over the entire portfolio of €800 per article. Providing more precise figures per journal would not necessarily be more accurate, as differences in costs depend among other factors on the allocation of internal costs (staff salaries) and indirect costs (utilities etc.) which can fluctuate depending on the results of other journals.

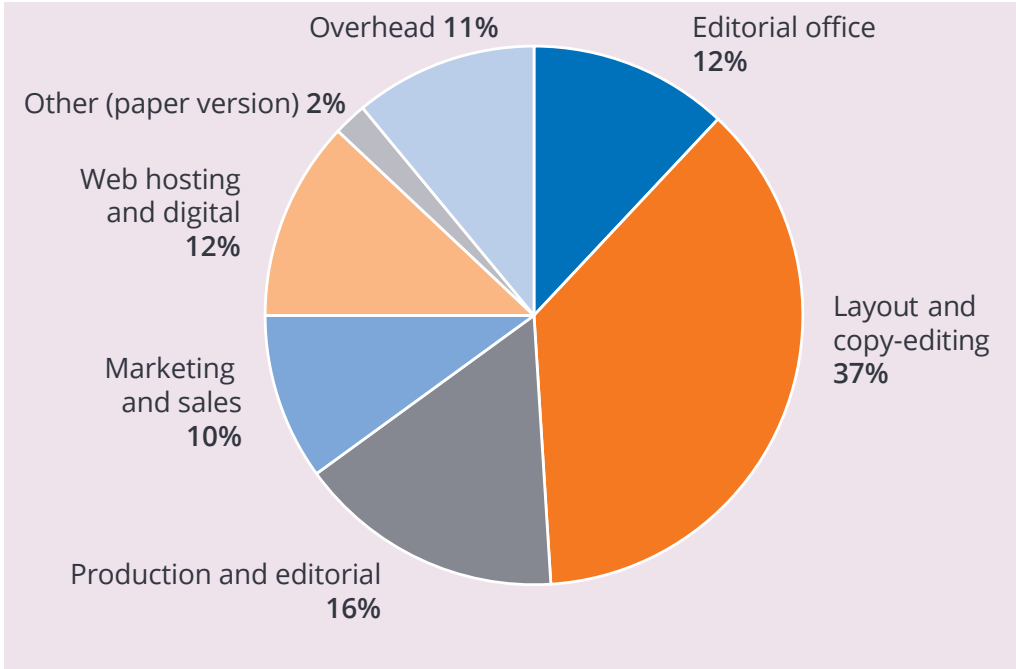
The main factors explaining differences in costs between journals are the volume of articles published, and the provision or not of an editorial office. Due to economies of scale, journals publishing a large volume of articles have a lower cost per article than journals publishing a low volume of articles.

In 2022, we launched a project aimed at reducing publication costs for the maths journals. A significant part of production cost is related to proof checking by EDP Sciences' Production Editors, who are not mathematicians. Following an audit conducted over several months of the most frequent typesetting errors, we implemented a new proof checking workflow. A second proof is now sent to authors who have more than a few straightforward corrections on their first proofs. Authors can now directly verify that their corrections are correctly implemented. While it creates more work for some authors who are asked to check their proofs twice, it also ensures that articles are published to the authors' satisfaction.

This new workflow contributed to reducing production costs from 2023, from approximately €1,000 to €950 per article on average, despite part of the savings being offset by general inflation. Since 2024, the higher and broadly stable volume of published articles has further helped reduce the average cost per article. In 2025, the average publication cost for the mathematics journals at EDP Sciences is estimated at approximately €800 per article, with variations depending on the journal, article volume, page extent and services provided. A detailed breakdown of publication costs is provided below.

The objective of this project remains to bring the journals closer to financial balance and to make the Subscribe to Open publication model sustainable in the long term. **Figure 2** presents a breakdown of the publication costs for the maths journals in 2025 (average over the whole portfolio).

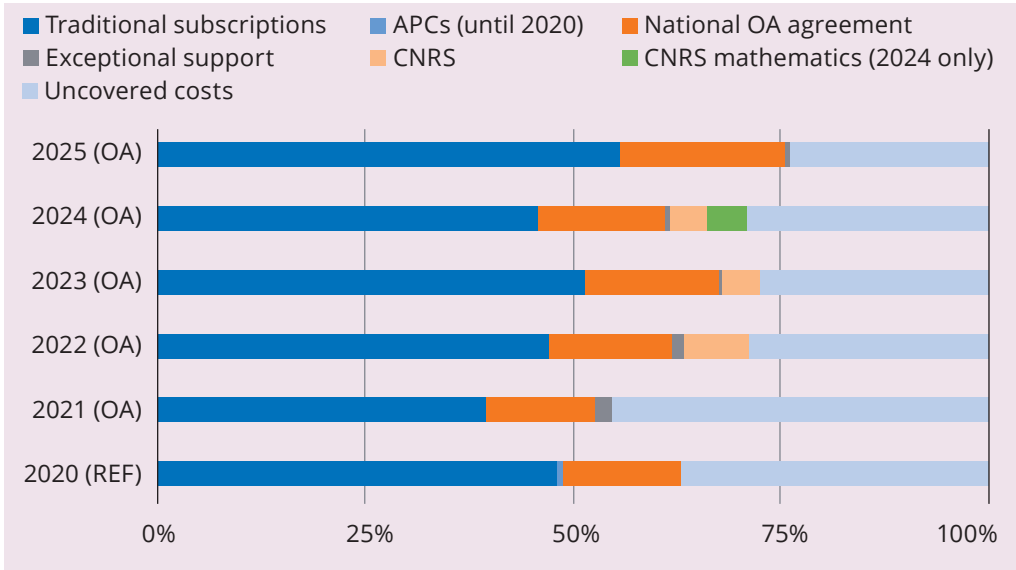
Figure 2. Breakdown of publication costs (2025): average for all 6 journals included in the program.

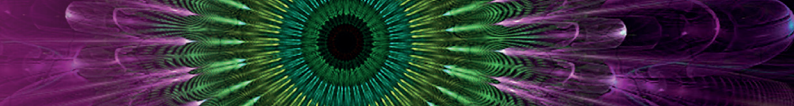


Revenue vs. publication costs

To calculate the overall publication costs over the entire portfolio, we multiplied the average publication cost by the number of articles published between 2020 (baseline year) and 2025. The average publication cost used was €1000/article in 2020-2022, €950 in 2023-2024 and €800 in 2025. This decrease mainly reflects the combined effect of the cost-reduction project launched in 2022 for the mathematics journals and the higher publication volume since 2024, which allows fixed and mutualised costs to be spread over a larger number of articles. **See Figure 3.**

Figure 3. Revenue vs publication costs for the entire maths portfolio (% publication costs). 2020 is the reference year. The journals have remained in open access under the Subscribe to Open (S2O) model for five consecutive years, from 2021 to 2025. “Uncovered costs” represent the publication costs not covered by the combination of revenue sources.





Overall, the portfolio of maths journals has been historically in financial deficit. The only journals making a profit individually are ESAIM:M2AN and RAIRO-ITA. ESAIM:M2AN is one of the largest and the most successful journals in the portfolio, and partly subsidizes the other journals.

In the baseline year 2020, income from traditional subscriptions, the French national agreement, and APCs to a minor extent, covered only 63% of publication costs. In other words, even 100% of 2020 subscription renewals don't cover the totality of publication costs. This was a challenging situation, even prior to the S2O transition.

The S2O renewal target is set at 95% "traditional" subscriptions (number of subscribers) being renewed compared to the baseline year. In 2021, only 91% of traditional subscriptions were renewed compared to 2020. Going from a situation where the increase in the number of pages published per year was limited to continuous publication led to a record number of articles published in 2021. This led to higher production costs, while subscription prices were frozen in 2021. The income from subscriptions and the French national agreement thus covered only 52% of production costs in 2021. Exceptional support from laboratories and individuals brought this total to 55%.

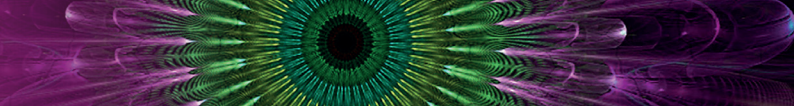
2022 was a more positive year for the maths S2O program. The emergence from the COVID pandemic and additional subscriptions brought by Knowledge Unlatched meant that traditional subscriptions recovered to their 2020 level. Part of the CNRS funding which was allocated to publication costs covered 8% of the costs and brought the total revenue to 71% of publication costs. The portfolio is getting closer to reaching a financial balance.

In 2023, the balance between publication costs and revenue increased slightly compared to 2022. Although subscription revenue increased in 2023, two other sources of revenue decreased: Support from individuals and institutions (outside of traditional subscriptions), and the part of the CNRS funding allocated to the program in 2023. A higher proportion of the CNRS funding is allocated in the first year of the funding program to contribute directly to the production costs of articles. In parallel, we were able to reduce publication costs by implementing a different proof correction workflow.

In 2024, the financial balance remained broadly stable, with total revenue covering 71% of publication costs. Traditional subscriptions covered 46%, the French national agreement 15%, and CNRS/CNRS Mathematics funding together around 9%.

In 2025, the financial balance of the maths S2O portfolio improved compared to 2024, with total revenue covering 76.1% of publication costs. Subscription revenue remained the main source of income, covering 55.7% of costs, while the French national agreement contributed a further 19.7%. Exceptional support remained limited, with the contribution from CERMICS covering only 0.7% of costs. This confirms that the programme still requires both strong subscription renewals and complementary funding to reach sustainability.

For the publication of the maths journals to be sustainable, 100% of publication costs should be covered by the combination of revenue sources. In other words, the sustainability target is set at 100% of publication costs covered. Our objective is to reach financial equilibrium for the portfolio of maths journals, through a combination of reducing publication costs, growing the subscriber basis, and securing new sources of funding. EDP Sciences is engaged in reducing subscription prices when the sustainability target is reached. Once a balance



is reached at the level of the portfolio and some contingency is set aside for interannual variations, the subscription price can be discounted to reward supporters of the S2O program.

Program governance

An Advisory Committee was set up as part of the governance of the EDP Sciences-SMAI Subscribe to Open initiative. One of its chief interests is the perennity of the transition of the journals to open access under the S2O model. This includes exploration of alternative sources of funding in addition to subscriptions to the journals under an S2O model. The Advisory Committee can also be consulted on aspects of transparency and accountability. In 2021, the Committee met three times. Since 2022, it meets twice per year: in the spring around the end of the subscription renewal period and the decision on whether to continue OA publication for the current year, and in the autumn to review actions taken during the year.

The Advisory Committee is composed of representatives from EDP Sciences, SMAI, [RNBM](#) (Réseau National des Bibliothèques de Mathématiques), [INSMI](#) (Institut National des Sciences Mathématiques et de leurs Interactions, also known as CNRS Mathématiques), [INRIA](#) (Institut National de Recherche en Informatique et en Automatique, also known as Institut National de Recherche en Sciences et Technologies du Numérique), [COSO](#) (Comité pour la Science Ouverte), the [Couperin](#) consortium, and [CNRS](#) (Centre National de la Recherche Scientifique). The Advisory Committee thus includes the major players of scientific publishing in mathematics, and of open access publishing in France, as well as the major funders of the program.

Although the EDPS-SMAI S2O program is advised by a mainly French Committee, the journals are international by their editorial board and their publication.

In addition, both EDP Sciences and SMAI are represented on the international [S2O Community of Practice](#). This is a forum for publishers and libraries to share their experiences with the model and to establish definitions and boundaries for S2O approaches.

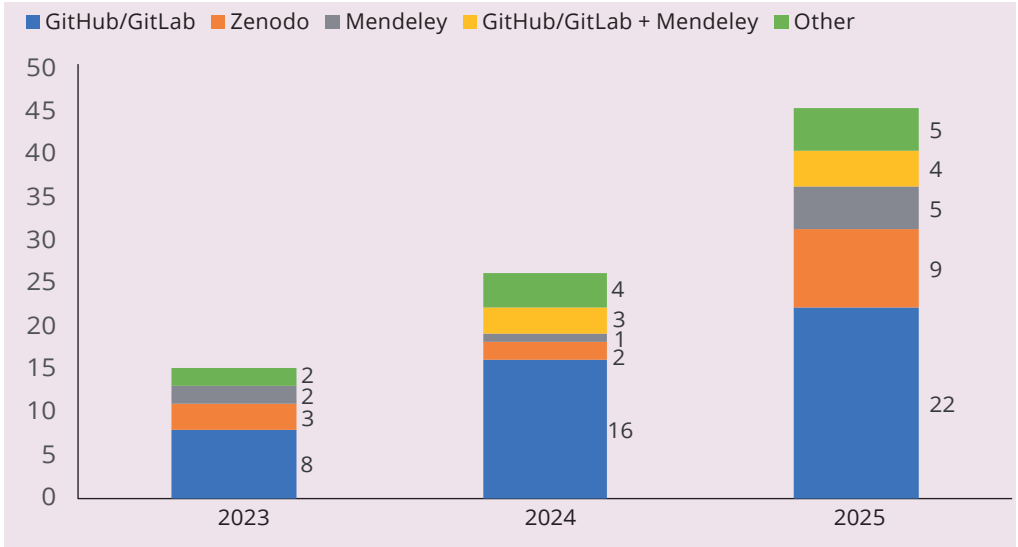
Open Science Indicators in the mathematics portfolio

EDP Sciences and SMAI are building on the success of the Subscribe to Open (S2O) model to support broader Open Science practices within the mathematics community. As highlighted in the December 2024 *Road to Open* update, [EDP Sciences Maths Journals: From S2O to OSI](#), inspired by the Open Science Indicators launched by PLOS, focuses on monitoring the sharing of data and code across the mathematics portfolio. The monitoring covers the five mathematics journals co-published by EDP Sciences and SMAI: *Mathematical Modelling of Natural Phenomena* (MMNP), *ESAIM: Control, Optimisation and Calculus of Variations* (ESAIM:COCV), *ESAIM: Mathematical Modelling and Numerical Analysis* (ESAIM : M2AN), *ESAIM: Probability and Statistics* (ESAIM-PS), and *RAIRO-Operations Research* (RAIRO-RO). It focuses on articles in which authors declare that data and/or code have been deposited in a public repository. Unlike the PLOS

framework, EDP Sciences does not currently track preprints deposited in preprint repositories, as preprint sharing through platforms such as arXiv is already widely established in mathematics.

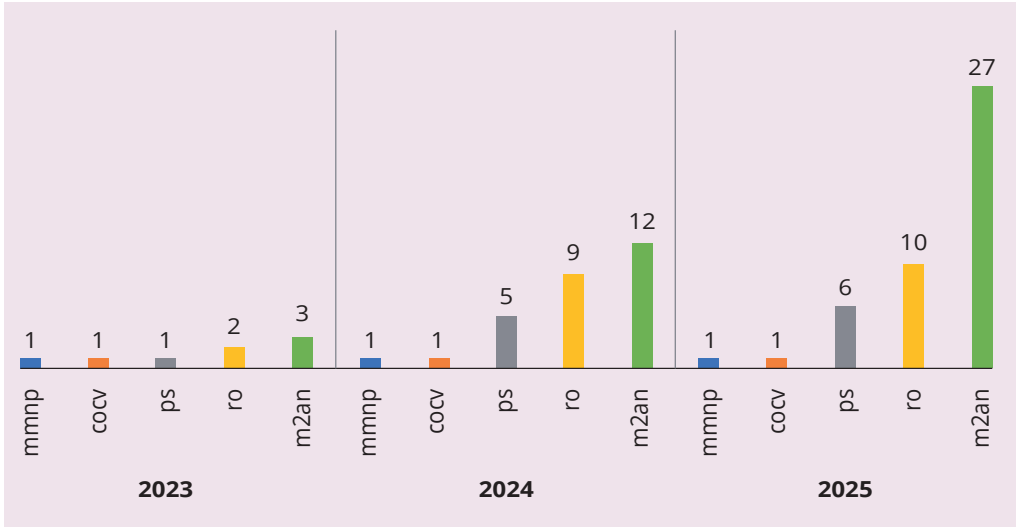
In March 2023, with the approval of the Editors-in-Chief, EDP Sciences introduced a common data and code sharing policy across these five journals. The policy encourages authors to deposit data and code in trusted public repositories. When authors declare at submission that data and/or code have been deposited in a public repository, they are required to include a *Data Availability Statement* in the article and to cite the corresponding data or code in the reference list. This provides a consistent framework to make data and code sharing more visible, traceable and reusable within the published literature.

Figure 4. Data and code sharing in the five EDP Sciences-SMAI mathematics journals, 2023–2025.



The number of articles declaring data and/or code sharing increased steadily over the three-year period, from 15 articles in 2023 to 26 in 2024 and 45 in 2025. This represents a 73% increase between 2024 and 2025, and a threefold increase over the 2023–2025 period. GitHub/GitLab was the most frequently used repository category throughout the period, increasing from 8 articles in 2023 to 16 in 2024 and 22 in 2025. Zenodo also progressed from 3 articles in 2023 to 9 in 2025, while the 2025 data show a broader use of repository types, including Mendeley, combined GitHub/GitLab and Mendeley deposits, and other public repositories.

Figure 5. Distribution of articles declaring data and/or code sharing by journal, 2023–2025.



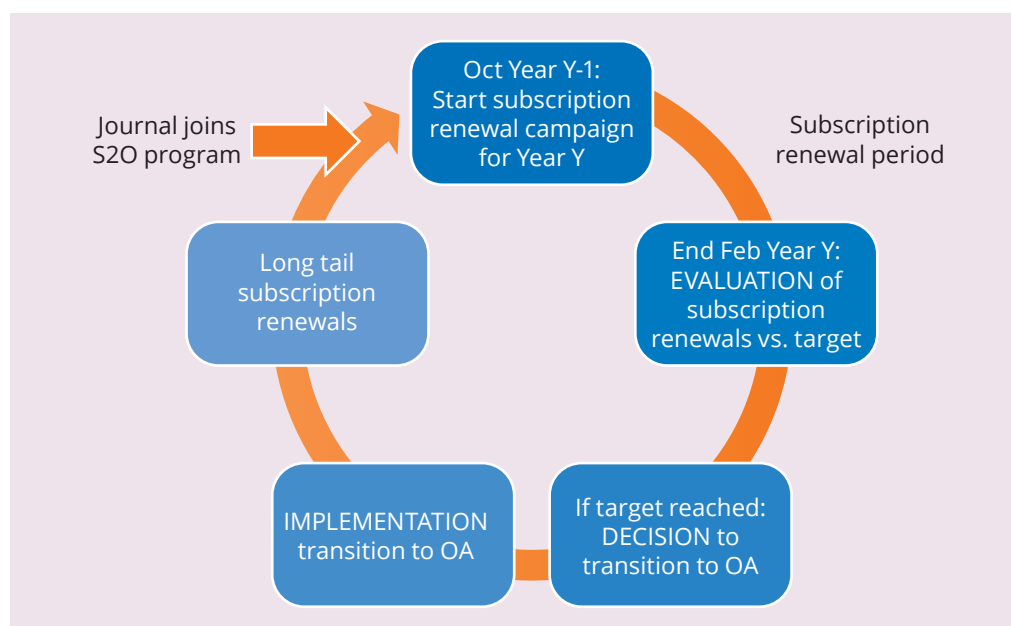
The journal-level breakdown shows that the adoption of data and code sharing is particularly visible in *ESAIM: Mathematical Modelling and Numerical Analysis* (ESAIM : M2AN) and *RAIRO-Operations Research* (RAIRO-RO). In ESAIM : M2AN, the number of articles declaring data and/or code sharing increased from 3 in 2023 to 12 in 2024 and 27 in 2025. RAIRO-RO also shows steady growth, from 2 articles in 2023 to 9 in 2024 and 10 in 2025.

These results show a clear and sustained progression in the declaration of data and code sharing across the portfolio. Although the absolute numbers remain modest compared with the overall volume of articles published, the trend points to a growing adoption of Open Science practices by authors. EDP Sciences and SMAI will continue to monitor these indicators annually in the S2O Transparency Report, as part of their broader commitment to transparency, reproducibility and community-led Open Science.

APPENDIX: Definitions

Subscribe to Open cycle: The decision to publish a journal under the S2O model in year Y is made in year Y-1 and communicated to agencies and subscribers at the time of subscription renewals for year Y. At this time, the journals are announced as being *published under an S2O model*, even if they do not end up being *published in open access* in the current year. The journals then enter the S2O cycle. The annual S2O cycle runs typically from end of February of year Y to end of February of Year Y+1. The cycle repeats every year, with the aim to keep the journals in open access with no interruption and thus perennialize the transition to open access under the S2O model.

Figure A1. Subscribe to Open cycle for a journal joining the Subscribe to Open program in Year Y-1.



Subscription renewal period: The subscription renewal period typically runs from October of Year Y-1 to end of February of Year Y. From October of Year Y-1, EDP Sciences sales department starts contacting its existing subscribers through the usual channels, inviting them to renew their subscription for Year Y, on the basis of a Subscribe to Open model.

There is a long tail of subscriptions to the current year being renewed throughout the year, even after the end of the official renewal period. The renewals coming after the end of the renewal period do not affect the decision to open the content, which is made at the end of the renewal period, typically at the end of February in the current subscription year.

Grace period: To account for administrative delays, a grace period is given to subscribers to renew their current year's subscription. The grace period is set at the end of January. After the grace period, access to content not published in open or free access is discontinued for subscribers not having renewed their subscription. This applies to all subscription journals published by EDP Sciences.

Archives: Access to the archives of the maths journals is reserved for subscribers. There are different years of reserved access for the different journals, for historical reasons. Reserving the access of years of archive to

subscribers allows us to provide a material benefit reserved to subscribers of the journals under the S2O model.

Table A1. Availability of content on EDPS's platform for the maths journals included in the S2O program. Content in free access is free to read for all. Content published in open access is free to read for all and free to share and adapt under a [CC-BY 4.0 licence](#).

Journal short name	Content in free access	Content in gated access*	Content in open access under S2O program
MMNP	2006-2016	2017-2019	2020-present
ESAIM:COCV	1996-2016	2017-2020	2021-present
ESAIM:M2AN	1967-2016	2017-2020	2021-present
ESAIM:PS	1997-2016	2017-2020	2021-present
RAIRO-RO	1968-1998	1999-2020	2021-present
RAIRO-ITA	1974-1998	1999-2020	2021-present

* Year 2018 is accessible on NumDam, the French digital mathematics library.

Forthcoming articles: Access to articles ahead of publication is also reserved for subscribers. This is indicated in a blue banner on the respective websites, see this [example](#) for ESAIM:M2AN.

S2O renewal target: For the maths S2O program, the subscription renewal target is set at 95% of the total yearly subscriptions being renewed at the end of the subscription renewal period, compared to the baseline year. The target of 95% follows the model originally adopted by Annual Reviews.

There may be years when the S2O renewal target is exceeded, i.e. more than 95% of subscriptions compared to the baseline year are renewed. We reserve the right to continue prospecting for new subscriptions until the journals are at financial equilibrium (see below, sustainability target).

Sustainability target: Overall, the portfolio of maths journals is in financial deficit. The sustainability target will be achieved when income from subscriptions and other sources of funding covers the publication costs of the journals. Subscription prices may be discounted in future years if the sustainability target is reached.

Baseline year: The year 2020 is the baseline year on which the success of every year's subscription renewal campaigns is evaluated. This remains the baseline year against which subscription renewals are evaluated every year.

Evaluation of subscription renewals: At the end of the subscription renewal period, the number of "traditional" subscriptions renewed (% subscriptions) is evaluated against the target set (here, 95%), for each journal. This determines whether the subscription renewal campaign was successful or fell short of the target, and the decision to publish in open access.

Decision to publish in open access: Following the evaluation of the subscription renewal campaign, EDP Sciences and SMAI, in consultation with the S2O advisory committee, make a concerted decision on which journal(s) will transition to open access publication in Year Y. If the target is not reached, the decision may be to keep or revert the journal(s) in gated access. This decision is made again every year at the end of the subscription renewal campaign.



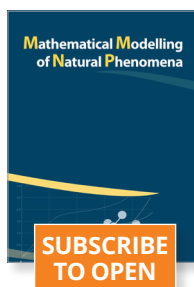
Implementation of open access publication: Publication of the content in open access follows the S2O calendar. When a journal transitions to open access under the S2O model, newly accepted content from the time of the decision to transition to OA is published in open access under a [CC-BY 4.0](#) license.

There is a shift between the S2O cycle (running typically from end of February to end of February of the following year) and the publication year/volume (running from January to December). When a decision is made to publish a journal in open access in the first year, the content previously published from the start of the current subscription year to the time the first articles are published are put in free access. That is, the content is made free to read but not under CC-BY license.

Traditional subscriptions: This term designates all single-site and multi-site institutional subscriptions, not including the French national agreement.

French national agreement: The [French national agreement](#) was [renewed in 2022 for 5 years](#). It is a [transformative agreement](#) (“Read & Publish”) providing a subscription to EDP Sciences journals for participating institutions and the possibility for their authors to publish in open access in these journals without APCs. It actively supports the S2O model for the transition of journals published by EDP Sciences to open access.

World-class mathematics journals – enabling open access through Subscribe to Open

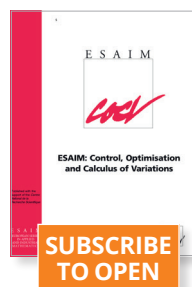


Mathematical Modelling of Natural Phenomena

MMNP publishes original and review papers on Mathematical Modelling in biology, medicine, chemistry, physics, and other areas in the context of real world problems.

mmnp-journal.org

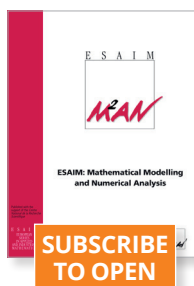
The first mathematics journal in the world to transition to open access using Subscribe to Open!



ESAIM: Control, Optimisation and Calculus of Variations

ESAIM: COCV publishes papers and surveys in the areas of Control, Optimisation, and Calculus of Variations. Articles may be theoretical and/or computational and cover topical subjects.

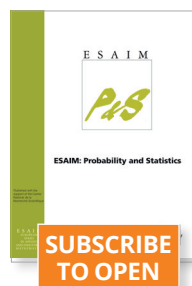
esaim-cocv.org



ESAIM: Mathematical Modelling and Numerical Analysis

ESAIM: M2AN publishes original research papers in Mathematical Modelling and Numerical Analysis providing rigorous theoretical analysis and evidence of computational relevance.

esaim-m2an.org



ESAIM: Probability and Statistics

ESAIM: P&S publishes original research and survey papers in Probability and Statistics. It covers theoretical and practical aspects and methodological developments with applications.

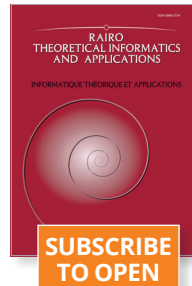
esaim-ps.org



RAIRO – Operations Research

RAIRO – RO is an international journal of high-level pure and applied research on Operations Research. It includes theory and methodology papers, case studies and state-of-the-art surveys.

rairo-ro.org



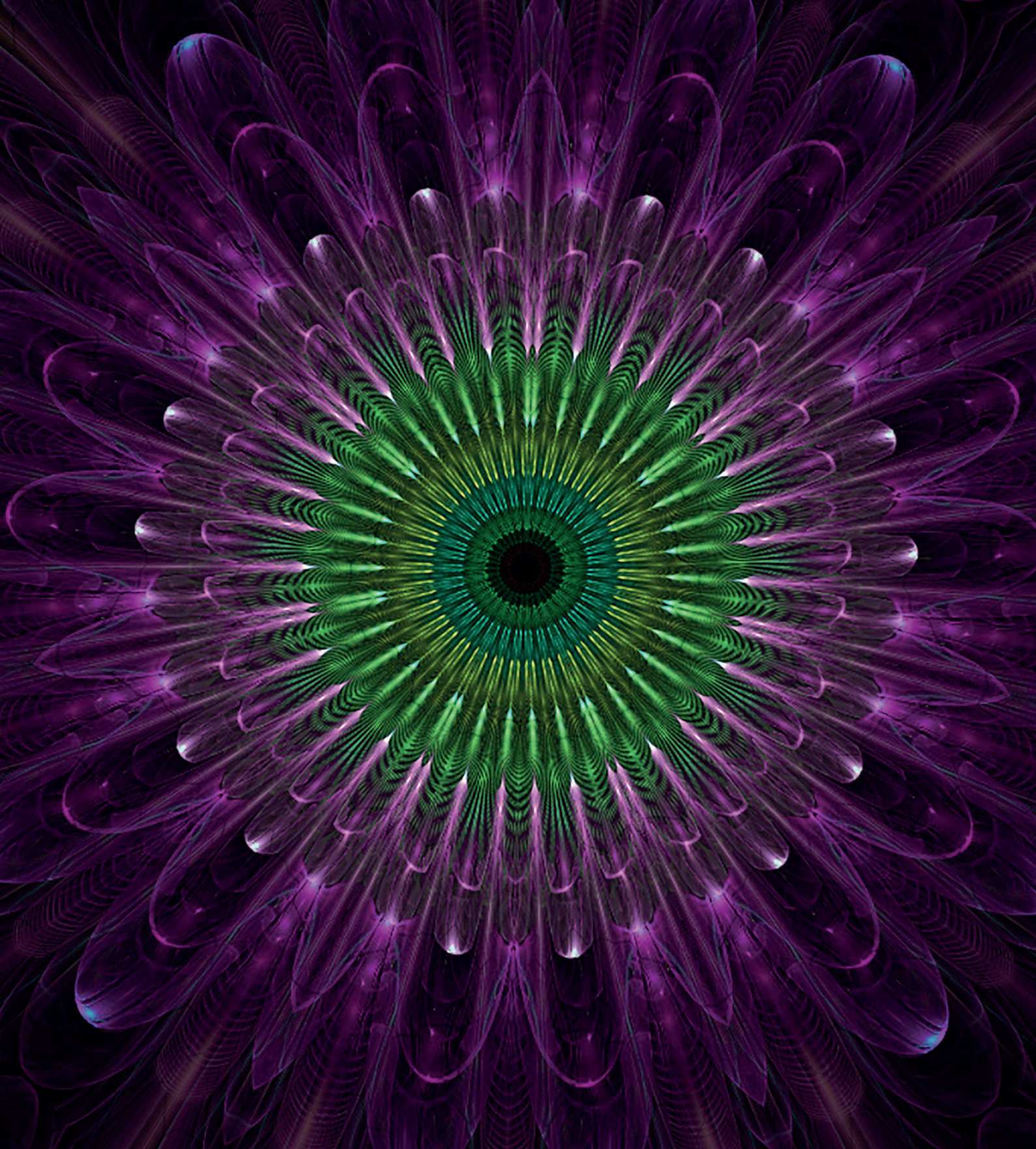
RAIRO – Theoretical Informatics and Applications

RAIRO – ITA publishes original high-level research papers in the area of theoretical computer science and its applications including game theory, quantum computation, cryptography.

rairo-ita.org

All the journals are published by EDP Sciences in partnership with SMAI except for *RAIRO – Theoretical Informatics and Applications* which is published by EDP Sciences only





**MINISTÈRE
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*Liberté
Égalité
Fraternité*

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