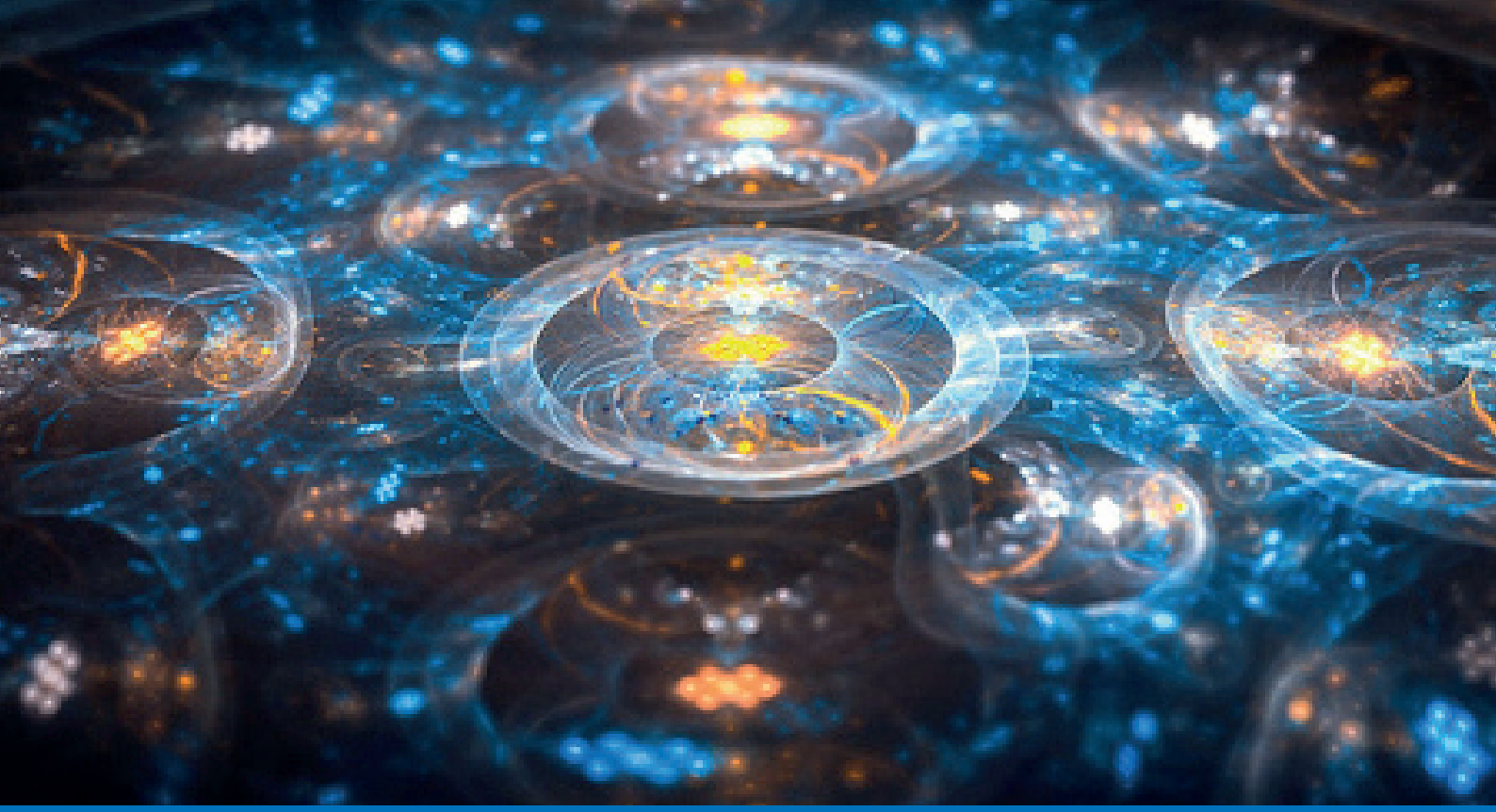

EDP Sciences-SMAI Subscribe-to-Open program

2021 Transparency Report

Anne Ruimy, Senior Publisher, EDP Sciences
Agnès Henri, Managing Director, EDP Sciences
Amandine Veber, Director of Publications, SMAI

Projet financé avec le soutien du Fonds National pour la Science Ouverte
Project funded with support from the French National Fund for Open Science

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EDP Sciences-SMAI Subscribe-to-Open program

2021 Transparency Report

April 2021

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EDP Sciences-SMAI Subscribe-to-Open program

Subscribe-to-Open (S2O) is an alternative, transformative model that aims to transition subscription journals to open access in an equitable, fair and sustainable way without Article Processing Charges (APCs). First introduced by Annual Reviews, S2O has been embraced by a number of publishers who have come together in the S2O Community of Practice. This innovative model builds on historical collaborative initiatives such as SCOAP3 and Knowledge Unlatched, and has quickly become an accepted approach for achieving open access.

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. Authors are then able to publish in open access, free of charge in S2O journals. Articles are published under a Creative Commons CC-BY license which allows authors to retain the copyright and others to share and adapt the content. If subscription renewal targets are not met, the content remains or reverts to being accessible to subscribers only.

EDP Sciences (EDPS) and the French Société de Mathématiques Industrielles et Appliquées (SMAI) have initiated a S2O program for mathematics journals that they co-publish. As advocates of open science, EDP Sciences and SMAI support the principle of transparency of costs and prices. We are therefore pleased to share this first annual report in 2021 which includes: evolution of subscription prices, renewal targets, publication costs, and other key measures. More detailed information is available to interested libraries on request. For more information on the EDPS-SMAI S2O program, see the FAQs or download the leaflet.

Journals involved

In 2019, EDP Sciences in partnership with SMAI made the decision to pilot a Subscribe-to-Open publication model with a first journal, Mathematical Modelling of Natural Phenomena (MMNP). The subscription renewal campaign on a S2O basis was declared successful at the end of February 2020 with 98% subscriptions renewed, exceeding the target of 95% renewals that had been set. MMNP transitioned to open access in early March 2020, see press release. Throughout the remainder of the year, additional subscription renewals were received, and 100% of subscriptions were renewed before the end of the year. The success of the MMNP S2O pilot, albeit on the basis of a small number of subscribers, paved the way for the extension of the S2O program to 5 other maths journals, see press release.

The 6 maths journals currently taking part in the pilot to transition to open access under a S2O model are listed in the following Table.

Table 1 Journal full name, short name, and year of joining the S2O program.

Journal full name and link	Short name	Year joining S2O program
Mathematical Modelling of Natural Phenomena	MMNP	2020
ESAIM: Control Optimisation & Calculus Variations	ESAIM:COCV	2021
ESAIM: Mathematical Modelling & Numerical Analysis	ESAIM:M2AN	2021
ESAIM: Probability & Statistics	ESAIM:PS	2021
RAIRO – Operations Research	RAIRO-RO	2021
RAIRO – Theoretical Informatics and Applications	RAIRO-ITA	2021

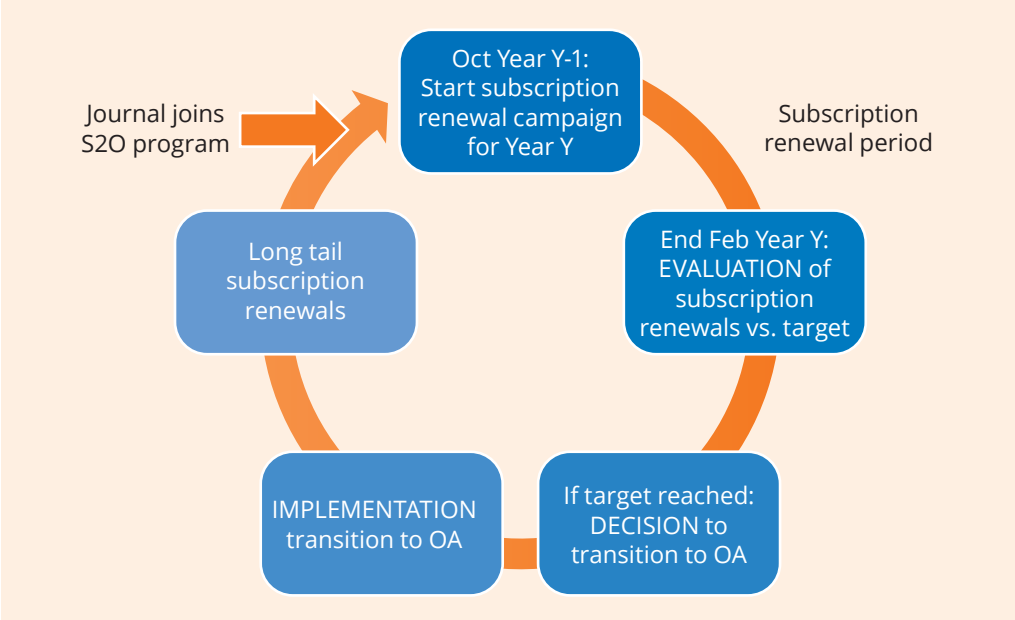
All journals are published in partnership by EDPS and SMAI, except RAIRO-ITA which is published by EDPS only. MMNP transitioned to open access in March 2020, and is currently published in Open Access. It was the first mathematics journal in the world to publish in OA under the S2O model.

The Subscribe-to-Open cycle: Definitions

The decision to publish the 6 maths journals under a Subscribe-to-Open model was made by EDP Sciences and SMAI in 2019 (for the first pilot journal MMNP) and during the course of 2020 (for the other 5 journals). What happens when a journal joins the EDPS-SMAI Subscribe-to-Open Program?

Subscribe-to-Open cycle: The annual life cycle of a S2O subscription runs typically from end of February to end of February. The cycle repeats every year, with the aim to keep the journals in open access with no break period and thus perennialize the transition to open access under the S2O model.

Figure 1. 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. The end of February deadline corresponds to the grace period given to subscribers to renew their current year's subscription, after which their access to the content is discontinued.

The evaluation of the 2021 renewal campaign was postponed from end of February to end of April 2021 due to delays in renewals in the context of the COVID pandemic. At the time of writing this report in mid-April 2021, the extended subscription renewal campaign is ongoing.

S2O renewal target: The S2O 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. The totality of subscriptions may not be renewed by the end of the subscription renewal period, there is a long tail of subscriptions to the current year of content being renewed throughout the year. The renewals coming after the end of the renewal period do not affect the decision to open the content, which is made once at the end of the renewal period, typically at the end of February in the current subscription year.

Baseline year: The baseline year on which the success of the subscription renewal campaigns is evaluated at the end of the subscription renewal period is 2019 for MMNP, 2020 for the other journals.

Evaluation: At the end of the subscription renewal period, the percentages of subscriptions renewed (%subscriptions and %revenue) are evaluated against the target set, for each journal. This determines whether the subscription renewal campaign was successful or fell short of the target.

Decision: Following the evaluation of the subscription renewal campaign, EDP Sciences and SMAI make a concerted decision on which journals 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.

Implementation: There is 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). Publication of the content in open access follows the S2O cycle. 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. Authors of accepted articles before the transition date are not offered the possibility to switch to open access publication. Conversely, in subsequent years, if the decision is made to close the content again, articles accepted before this time will still be published in open access.

There is a time lag between the decision to transition to open access and the first articles effectively published in open access, while articles accepted before and after the transition go through the production process. This time lag may be longer if there is a significant backlog of articles accepted and waiting for publication before the transition to OA (see below actions taken to reduce the historical backlog).

When a decision is made to transition a journal to open access, the content previously published in this journal from the start of the current subscription year is opened in free access. That is, the content is made free to read but not under CC-BY license. The articles published during years when the journal was in

open access under S2O model remain in open/free access. The archives for the maths journals which are under a 5 year "moving wall" embargo remain in gated access, with access reserved to the subscribers.

Sustainability target: Overall, the portfolio of maths journals is seeing an operational 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 can be discounted if the sustainability target is reached (see section below on turnover vs. publication costs).

2021 subscription renewal campaign

The Tables below report on the percentage subscription renewals at the end of February 2021, the date originally set as the end of the subscription renewal period, compared to end of year in the baseline year 2020. Both the % of subscribers and % revenue are reported. In a normal year, most subscriptions are renewed by the end of February.

Table 2a Percentage number of subscriptions renewed compared to baseline year, at the end of the normal subscription renewal period (end of February).

Date	MMNP	ESAIM: COCV	EASIM: M2AN	ESAIM: PS	RAIRO-RO	RAIRO-ITA
23/02/2021	89.3%	77.2%	81.7% (O) 82% (P+O)	93.0%	77.3%	79.2%

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.

Table 2b Percentage of subscription revenue renewed (€) compared to baseline year, at the end of the normal subscription renewal period (end of February).

Date	MMNP	ESAIM: COCV	ESAIM: M2AN	ESAIM: PS	RAIRO-RO	RAIRO-ITA
23/02/2021	99.2%	78.1%	81.5% (O) 78.2% (P+O)	98.3%	79.6%	81.5%

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.

The differences in the percentage renewals in terms of number of subscribers and in terms of revenue are explained by the following factors:

1. Subscriptions include multi-site licenses (including the French national license), thus the revenue is not proportional to the number of subscribers;
2. Variations of currency conversion rates from $/€ also explain some of the differences.

The Tables above show that by the end of the normal subscription renewal period, the percentage of renewals was short of the target set at 95% to open the content for both metrics, except for MMNP (99% of 2020 subscription revenue renewed by end of February). This was attributed partly to delayed renewals in the context of the COVID pandemic.

To give more chance to the S2O program to succeed, we made the decision to extend the subscription renewal period from end of February to end of April 2021. An announcement will be made on the results of the 2021 subscription renewal campaign and the transition of journals to open access in May, via press release.

Subscription prices

EDP Sciences is committed to fair subscription prices, and fair price increases. Typical increases year on year varies from 0 to 3%. In the context of the COVID pandemic, EDP Sciences announced a price freeze for 2021 subscription prices over its entire portfolio of journals (see press release). The 11% year-on-year increase for RAIRO-RO in 2020 coincided with the addition of an issue in the 2020 volume, from 5 to 6 issues per year, to follow the growth in the journal and partly reduce the backlog of accepted articles that were on hold for publication.

Table 3 Evolution of subscription prices since 2019 and percentage increase year-on-year.

Year	MMNP	ESAIM: COCV	ESAIM: M2AN	ESAIM: PS	RAIRO-RO	RAIRO-ITA
2019	€353	€389	€996 P+O €1487	€226	€449	€429
2020	€360 (2%)	€389 (0%)	€996 (0%) (O) €1487 (0%) (P+O)	€226 (0%)	€499 (11%)	€429 (0%)
2021	€360 (0%)	€389 (0%)	€996 (0%) (O) €1487 (0%) (P+O)	€226 (0%)	€499 (0%)	€429 (0%)

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.

The prices indicated in the Table above are the list prices communicated on our website and to the subscription agencies. For the 2021 renewal campaign, we communicated on the price freeze in 2021, and the fact that subscribers have reserved access to the archives of the maths journals that are under a 5 year "moving wall" embargo.

Article Processing Charges (APCs)

The journals in the maths portfolio are primarily subscription journals. These journals are not positioned as hybrid journals offering an open access publication option, as the author-pays open access model is not supported by the French mathematics community. The only APCs invoiced to authors followed ad-hoc requests by the authors. The number of APCs and amounts concerned are in the Table below.

Table 4 APCs collected in 2019 and 2020.

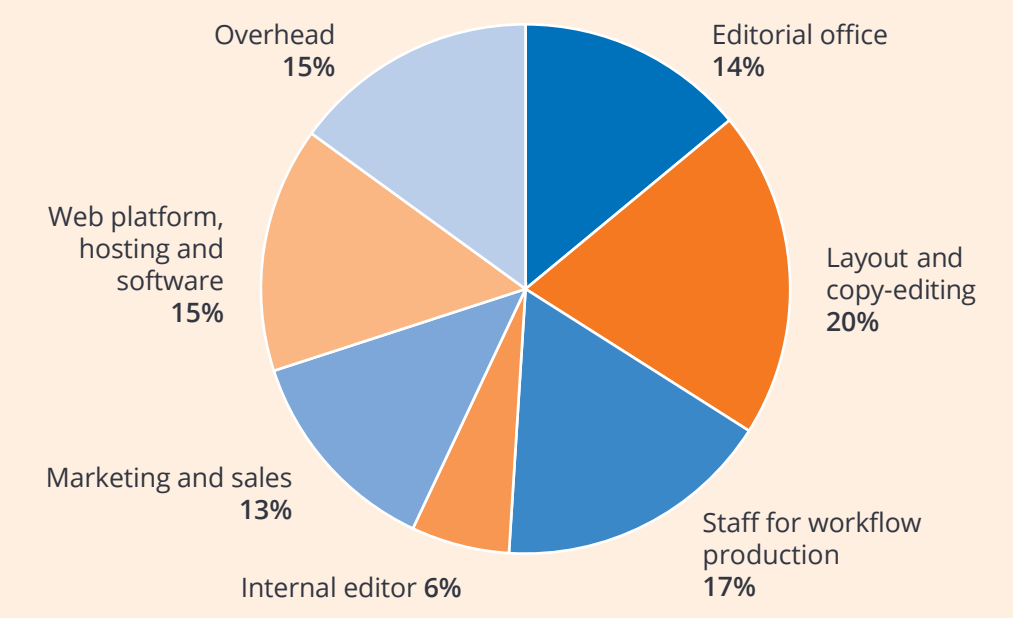
Year	MMNP	ESAIM: COCV	ESAIM: M2AN	ESAIM: PS	RAIRO-RO	RAIRO-ITA
2019	0	0	1 (€1500)	1 (€1200)	0	0
2020	0	1 (€1200)	2 (€3000)	0	0	0

The number of APCs and amounts collected have therefore been very low. The complete removal of APCs will not affect the financial balance of the journals transitioning to full open access publication free of charge for all authors under a S2O model.

Publication costs

The publication cost of an article is around €1000-1200 (profit margin not included). This is broken down as per figure below.

Figure 2 Breakdown of publication costs for maths journals.



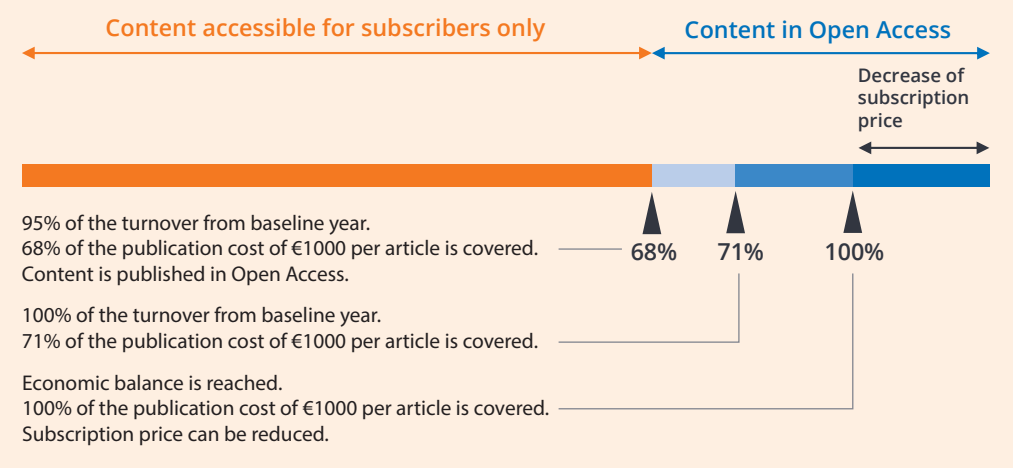
Turnover vs publication costs

The average publication cost of an article is estimated at €1000 per article. To calculate the overall publication costs over the entire portfolio, we multiplied the estimated publication cost of €1000 per article by the number of articles published.

The turnover includes the following sources of income: subscriptions + parts "read" and "publish" of the French national agreement + APC revenue. This does not take into account the funding awarded to the EDPS-SMAI Subscribe-to-Open initiative by the *Fonds National pour la Science Ouverte* (FNSO), as this does not represent normal operating costs (See section below on FNSO support for more information).

The Figure below represents the overall turnover vs. publication cost over the entire maths portfolio in 2020 and other derived indicators, in percentages.

Figure 3 Financial balance over the entire maths portfolio in 2020, in percentage of turnover vs. publication costs, on the basis of an average publication cost per article of €1000.



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

The ratio of the annual turnover over publication costs for the entire portfolio in 2020 was 71%. In other words, in the baseline year 2020, income from subscriptions and other sources covered only 71% of publication costs, or €710 of the €1000 it costs to publish an article in one of the journals. The S2O renewal target of 95% subscriptions renewed in 2021 therefore covers only about 68% of the overall publication costs, or €680.

The sustainability target is set at 100% of publication costs being covered. Our objectives are to reach financial equilibrium for the portfolio of maths journals, through a combination of reducing publication costs, attracting new subscribers (while retaining the existing subscriber basis) and new sources of funding such as sponsorship. 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.

Support from the *Fonds National pour la Science Ouverte* (FNSO)

SMAI in partnership with EDP Sciences have been awarded funding for 3 years by the French *Fonds National pour la Science Ouverte* (FNSO), see press release. FNSO support aims to perennialize the transition to open access of the 5 journals co-published by EDP Sciences and SMAI under a S2O model: MMNP, ESAIM:COCV, ESAIM:M2AN, ESAIM:PS, RAIRO-RO. The FNSO funding supports 3 aspects:

1. **Preparation of the transition.** Historically, subscription price increases were kept low and did not keep pace with a larger year-on-year growth in the number of accepted articles in some of the journals in the maths portfolio. This did not allow the number of articles published each year in the journal to match the volume of accepted articles. Excess articles were kept on hold for final publication, although accepted articles are available immediately as “forthcoming” articles. To avoid a significant time lag before newly accepted articles can be published in open access

following the transition to S2O, we published the bulk of these excess articles at the beginning of 2021. This was published in the form of one-off free supplements to the regular 2021 volumes of the journals RAIRO-RO, ESAIM:COCV, ESAIM:M2AN. The supplements published represent a significant volume of content, equivalent to 6 months of regular content for ESAIM:COCV and ESAIM:M2AN, and 15 months for RAIRO-RO. See the Publisher's note published in the respective journals for more information, e.g. https://www.rairo-ro.org/articles/ro/pdf/2021/01/ro210010s.pdf. These 3 supplements are available to subscribers and non-subscribers in free access in perpetuity, outside of the moving wall embargo, regardless of the success of the renewal campaigns and effective transition of the journals to open access.

2. **Commercial activities.** Commercial activities aim to retain existing subscribers under a S2O model, attract new subscribers (in particular institutions using the content in open access and/or publishing in the journal in open access), encourage subscribers to upgrade to the package of maths journals instead of individual journals, and experiment with new commercial offers. We are exploring possible partnerships with specialized agencies to assist us with this aspect.
3. **Marketing and communication activities.** Marketing and communication activities undertaken by both partners EDP Sciences and SMAI aim firstly to educate the community about the S2O model, and secondly to support commercial activity, via various communication channels (promotional material, news and press releases, social media, participation in events and so on).

Program governance

A Subscribe-to-Open 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 a S2O model. The Advisory Committee can also be consulted on aspects of transparency and accountability. The Committee aims to meet twice per year. Its first meeting took place in March 2021.

The Advisory Committee is constituted of representatives from EDP Sciences, SMAI, RNBM (Réseau National des Bibliothèques Mathématiques), INSMI (Institut National des Sciences Mathématiques et de leurs Interactions), INRIA (National Institute for Research in Digital Science and Technology), COSO (Comité pour la Science Ouverte) and the Couperin consortium. It thus includes the major players of scientific publishing in mathematics, and of open access publishing in France. Although the EDPS-SMAI S2O program is advised by a French Committee, the journals are international by their editorial board and their publication.

In addition, both EDP Sciences and SMAI are represented in 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.

Contact

For further information please contact Agnès Henri, Managing Director, EDP Sciences (agnes.henri@edpsciences.org).

World-class mathematics journals – transitioning to open access under Subscribe to Open

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SMAI
société de mathématiques appliquées et industrielles

Mathematical Modelling of Natural Phenomena

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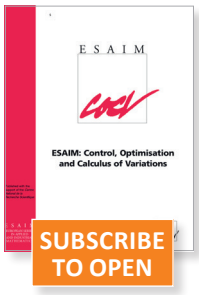
mmnp-journal.org

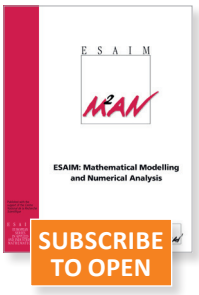
The first mathematics journal in the world to transition to open access using Subscribe to Open!



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.

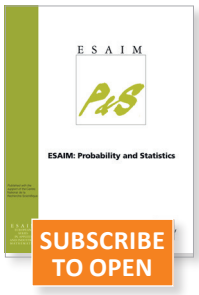
esaim-cocv.org



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

Subscribe to Open (S2O)
A fair and sustainable open access model

What is S2O?	• An innovative, transformative model that aims to move subscription journals to open access
How does it work?	• Following the subscription renewal cycle, a journal joining the S2O programme will publish its newly-accepted content in open access as soon as all subscription renewals have been received, typically at the end of February in Year 1 • Pricing is established in a transparent way to balance the costs of publication – libraries are involved in the process through an independent committee • If a journal does not reach the subscription threshold, only subscribers will receive access to papers published in the coming year
Benefits for subscribers	• Institutions support journals for the common good of the academic community and demonstrate their commitment to open access • Only subscribers get access to 'moving wall' archive content that is not yet in open access (embargoed for 5 years)
Benefits for authors	• Authors publish in S2O journals in open access, free of charge (no APCs) - publication fees are covered by the subscription income • Articles are published under a CC-BY 4.0 license allowing authors to retain the copyright • The license enables authors to be fully compliant with the open access requirements of their institution or funding organisation(s)
Benefits for the community	• It supports open access and open science and helps to guarantee the long-term scientific independence of researchers through a diversity of publishing models • It supports the values of the mathematics community • It helps to meet the growing demand for open access publications, e.g. Plan S
How can I support S2O?	• New subscribers may join the mathematics S2O programme at any time by contacting subscribers@edpsciences.org • Additional participation will help the S2O model to thrive and will reduce the subscription price for subscribers
Where can I find out more?	• Contact SMAI – smai-vp-publications@emath.fr • EDP Sciences Frequently Asked Questions (FAQs) – bit.ly/S2OFAQs • Subscribe to Open Community of Practice – subscribetoopencommunity.org

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EDP Sciences' and SMAI's
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