# State of the art of local Digital Mathematical Libraries Panel #1

The Future World Heritage Digital Mathematics Library Plans and Prospects

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## **Panelists**

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FWHDML (Plans and Prospects)

Panel I: State of the art of local DMLs

## Panel intro/l

- The total amount of mathematics items is estimated in the to 3.5 M  $\cdot$  item, spanning in the range 70-100 M  $\cdot$  page.
- The amount of mathematics available digitally is already huge (probably more than a half of the abobe figure).
- The number of items available freely on the internet is somewhere between a quarter and a half of these.
- However these figures are biaised by the fact that virtually every new item is pubished in digital form, and there are much more new items than older ones left behind the digital realm (just think that more than I M·item has been published since the start of this century).
- If a heritage mathematical library means that we focus on copyright-free, reference mathematical texts still relevant today, that's at most 500 K · item before 1950, 300 K · item before 1900.



## Panel intro/2

- An important effort has been devoted by non-profit organizations since a decade and a half to digitizing mathematical articles (up to recent ones) and books (generally old ones) in order to offer free access to them online.
- We have here at this table (and is the room), representatives of such projects with an important stress on mathematical content.
- I will ask them now to make a short presentation on their projects. We will thus have an overview of the existing content and services that are running worldwide.

#### NUMDAM trivia

- Funded year 2000, end of funding : 2010.
- First online posting Dec. 2002 (2 journals)
- As of today : 34 journals, 29 seminars, 3 memoir series. 52 500 articles, 800 000 pages.
- Time span : 1810-2011
- Linguistic span : French, English, Italian, Greman, Russian, Latin, Esperanto...
- Digitized : 47 000 articles, 900 000 pages.
- Born digital (archived from files transferred by publishers) : 5 500 articles, 120 000 pages. Up-to-date publishers/aggregators : CEDRAM, EDP Sciences, Ann. Padova, Ann. Pisa, Euclid/IMS Have updated : Elsevier, Springer

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		Résumé On donne une obstruction topologique pour qu'un feuilletage $F_1$ soit un sous-feuilletage d'un autre $F_2$ en comparant les images des homomorphismes caractéristiques associés (dans le sens de Lehmann). Bibliographie				
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### Panel question 1

#### Math vs. non math

- How much of what has been done is specific to math ? Is mathematics still "penalty copy" or can it be embedded successfully in the standard workflow of modern digital libraries ? (in which case we could possibly stop talking about the DML, but rely on some DL infrastructure and concentrate on the added value we can offer to the mathematical community)
- The mathematical discourse is heavily structured (claims, proofs, formulae). There is also a strong tradition of indexing the mathematical corpus (MSC, reviewing databases, author identification). Is this an opportunity that could allow more powerful navigation of mathematical documents than in other fields ? or a threat ?

## Panel question 2

#### Local vs. global

- Do you view your local DML as a repository of documents provided by your project to the world. Is it conceived as a resource to be used globally or locally only? (unique IDs, API, sharable (meta)data)
- Do you participate in cross-repository projects? Could you share the outcome with us?
- Where are the areas where you would expect the greatest benefit of networking ? Are there things you cannot do because you are too small, too isolated...