Cellule MathDoc, CCSD, two teams collaborating on promoting scientific documentation

- Cellule MathDoc (Cellule de Coordination Documentaire Nationale pour les Mathématiques)
- CCSD (Centre pour la Communication Scientifique Directe)
- How we collaborate

We agree on..

- Re-appropriation by scientists of the publication and diffusion process.
  - New modes of publication, with « distributed » control, and international collaboration.
  - Valorization of scientific inheritance / « low cost » access (academic digitization programs such as DML and NUMDAM).
- Valorization of academic publishers
  - more …

So, who are we, and what are we doing?

Cellule MathDoc
www-mathdoc.ujf-grenoble.fr

- Created in 1995
- An institute for Scientific Information & Communication in Mathematics, supported by Centre National de la Recherche Scientifique (CNRS, dept SPM) and Ministère de la Recherche.
- **Pluridisciplinary team**: 3 mathematicians, 2 computer engineers, 2 "documentalistes", 1 assistant, 2 temporary staff
- **General mission**: documentation issues in mathematics at the national level in France, in cooperation with mathematics libraries and institutes.

Cellule MathDoc Partners

- RNBM (national mathematical library netwo
- Mathematical laboratories et Institutes and SMF et SMAI learned Societies
- CCSD
- EMS (European Mathematical Society)
- IMU (International Mathematical Union)
- ...

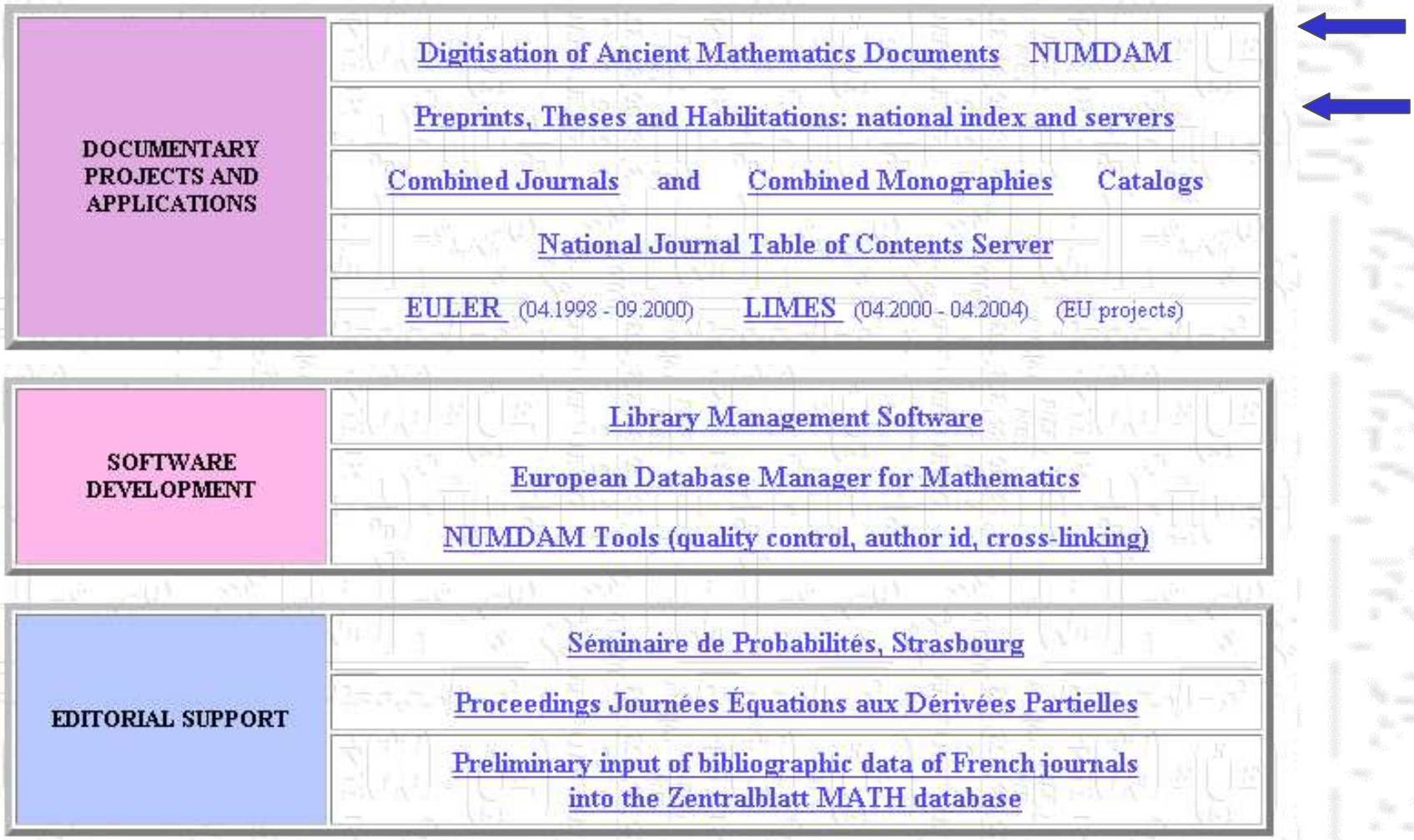
Combined catalogs, consortial agreements

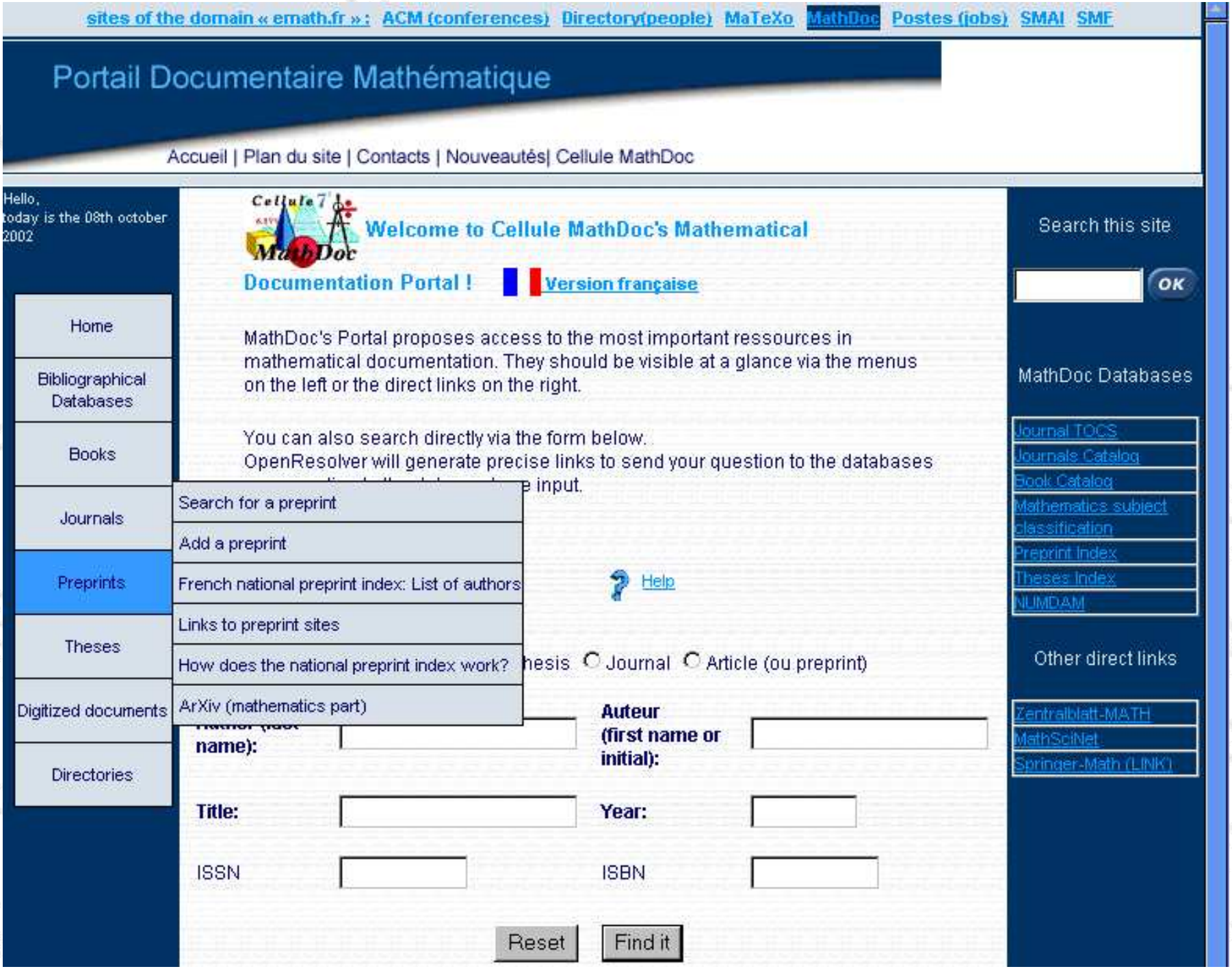
Eprint archives

Zentralblatt-MATH...

Digital Math Library,

MathDoc projects and applications




sites of the domain « emath.fr » : ACM (conferences) Directory(people) MaTeXo MathDoc Postes (jobs) SMAI SMF
Portail Documentaire Mathématique
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Hello,
today is the 08th october 2002
Welcome to Cellule MathDoc's Mathematical Documentation Portal !
Version française
MathDoc's Portal proposes access to the most important ressources in mathematical documentation. They should be visible at a glance via the menus on the left or the direct links on the right.
You can also search directly via the form below.
OpenResolver will generate precise links to send your question to the databases
input.
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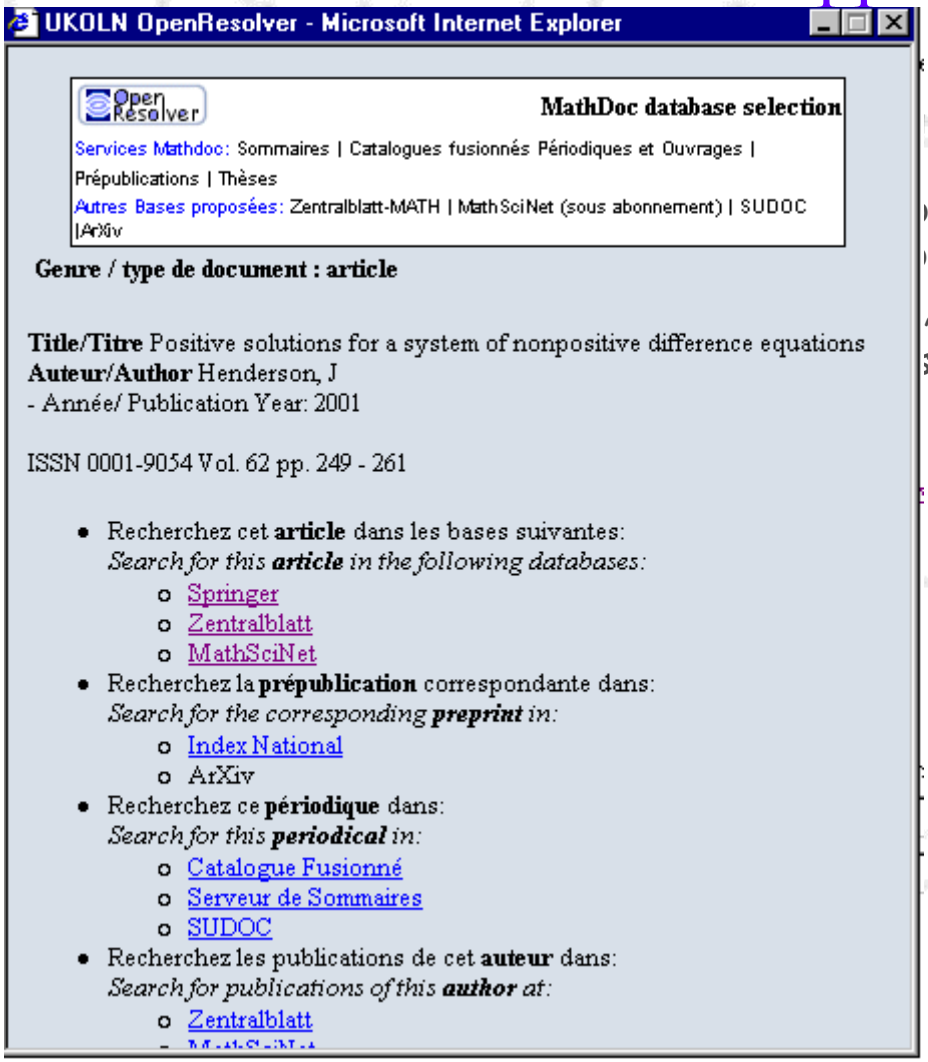
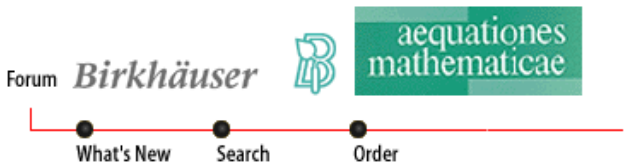
NUMDAM
Other direct links
Zentralblatt-MATH
MathSciNet
Springer-Math (LINK)

MathDoc uses OpenUrl to communicate between its applications





Aequationes Mathematicae

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Abstract Volume 62 Issue 3 (2001), pp 249-261

Positive solutions for a system of nonpositive difference equations

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[2]School of Electrical and Electronic Engineering, Nanyang Technological University, 50, Nanyang Avenue, Singapore 639798, e-mail: ejywong@ntu.edu.sg

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Summary. We consider the following boundary value problem

$ \cases{\Delta^{n} u_i(k)+q_i(k,u_1(k),u_2(k),\cdots,u_m(k))=0,~k\in {0,1,\cdots,N\} \cr \Delta^{j}u_i(0)=0=\Delta^{p_i}u_i(N+n-p_i), 0\leq j\leq n-2 \cr i=1,2,\cdots,m\cr} $

where $ n\geq 2,~N\geq n-1,~1\leq p_i\leq n-1,~1\leq i\leq m $, and the nonlinearities $ q_i,~1

MathDoc and eprints

- MathDoc does not archive eprints
- MathDoc manages two indexes, which are built up by gathering metadata (+links to fulltext):
  - Index of theses (800 mathematical theses from 1995->)
  - Index of preprints (2800 math preprints from 1998->)
- Metadata are harvested from mathematical departm institute preprint websites (via a web harvester understanding (DC) META tags)
- Metadata are harvested by OAI from … CCSD
- Both are fed into the index.

Difficult to manage properly: Documents disappear…not easily evolutive

A lot more later...

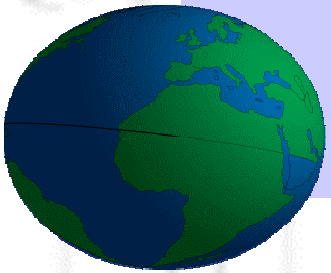
ccsd

Centre pour la Communication Scientifique Directe

- Started in 2001 impulsed by Franck Laloë
- Initiative of CNRS departments IN2P3 & SPM
- Hosted by in2p3 computer center
- People : 2 scientific counsellors, 1 vice director, 2 computer engineers
- Servers integrated in CC in2p3 infrastructure

CCSD missions

- Promote direct communication between researchers by setting up and promoting open archive services.
- Participate in improving, internationalizing and making secure the « ArXiv »
- Collaborate in normalization work and international initiatives for open archives.



Services offered by CCSD

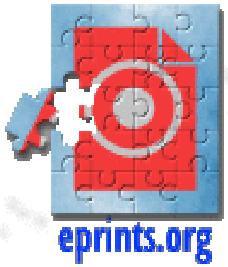
- arxiv.ccsd.cnrs.fr — ArXiv Mirror
- ccsd.cnrs.fr/PhysNet — PhysNet mirror
- theses-en-ligne.ccsd.cnrs.fr — With MathDoc
- archivesic.ccsd.cnrs.fr — Information and communication science archive
- jeannicod.ccsd.cnrs.fr — Cognitive sciences archive

- hal.ccsd.cnrs.fr — Multidisciplinary eprint server interconnexion with ArXiv

TEL: Online thesis server

- On demand from different laboratories and institutes
- More than 200 theses in less than a year (most important online thesis server in France?)
- Other initiatives
  - Grandes écoles in Paris, Lyon II, …

eprints v1.1.1



- Free software from Southampton under the direction of Steven Harnad
- Multilingual version developped in CCSD
- « By domain » moderation added
- Fulltext search engine added

- Used for :
  - theses-en-ligne.ccsd.cnrs.fr
  - archivesic.ccsd.cnrs.fr
  - jeannicod.ccsd.cnrs.fr

HAL Hyper Articles en Ligne

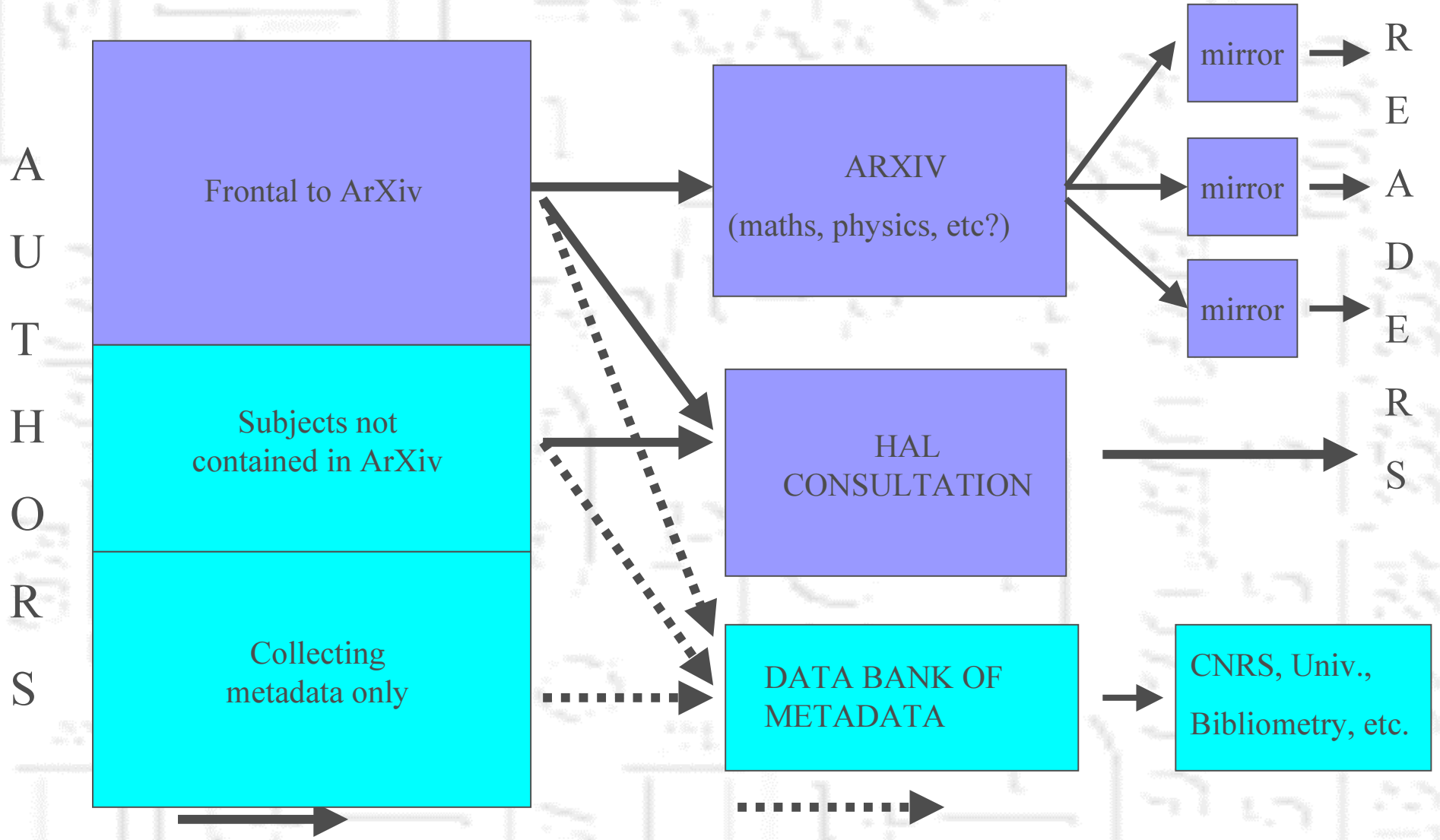
- Archival software developped in CCSD
- Submission portal to ArXiv
- Collaboration Cornell University (Paul Ginsparg) /CCSD
- Open since 23rd september (2002)
  - Metadata
  - Ergonomy
  - Bilingual
  - Interconnexions other databases

HAL, why bother ?

- Second submission portal (the only other one is in Cornell)
- Physics and mathematics data are stocked in CCSD and in ArXiv. Other data (humanities) stay on HAL.
- More complete metadata, more easily expo to other databases
- Search on mirrors

Laboratories and institutes can be identified, more fields are input,

What HAL does now, and will do...



CCSD and MathDoc: complementary

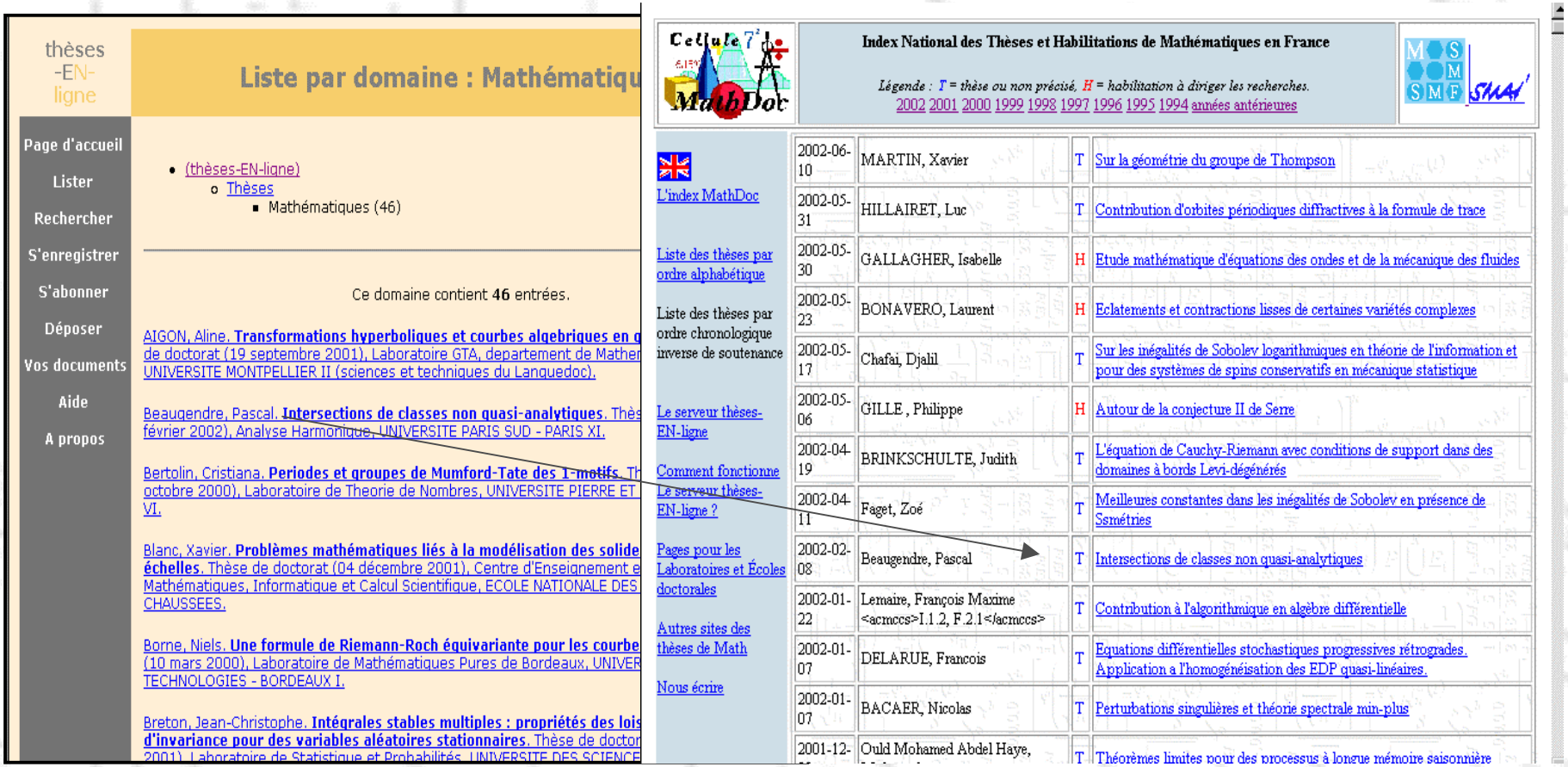
- CCSD **archives** eprints of all scientific fields, and offers « all purpose » consultation on its server.

- MathDoc proposes a more complete service for mathematics:
author index, chronological index, different statistics, etc...

An exemple:theses

- Until 2001, MathDoc had a form on its website allowing post grads to declare their thesis directly into the mathematical theses index.
- In 2001 CCSD and MathDoc collaborated in setting up the « TEL » online thesis server
- Now students are « redirected » to the TEL server, and must put their thesis there.
- Metadata is harvested by OAI

CCSD MathDoc

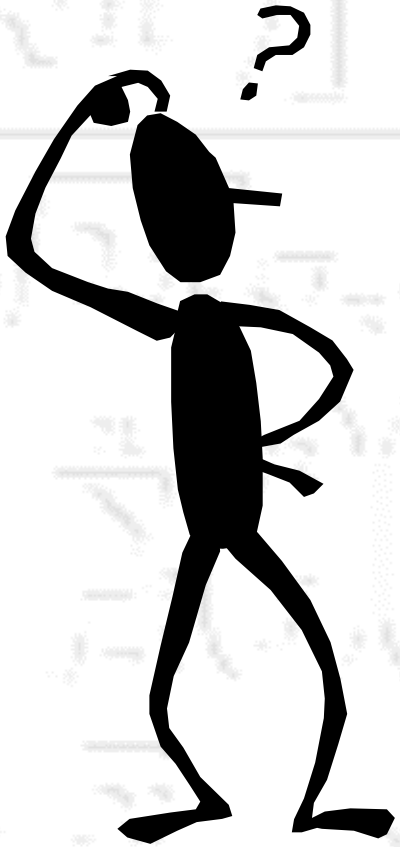


Collaboration continues with « HAL »

- MathDoc will encourage people, and institutes to make good use of « HAL »
- Institutes can either:
  - Keep their preprints on « hal » and automatically generate (via OAI, or indirectly via a service set up by MathDoc for each institute) an ad-hoc « preprint » page on their own website.
  - Make their own preprint server and « upload » the data onto « hal »

This is already possible

This is still a project



Time for any questions ?