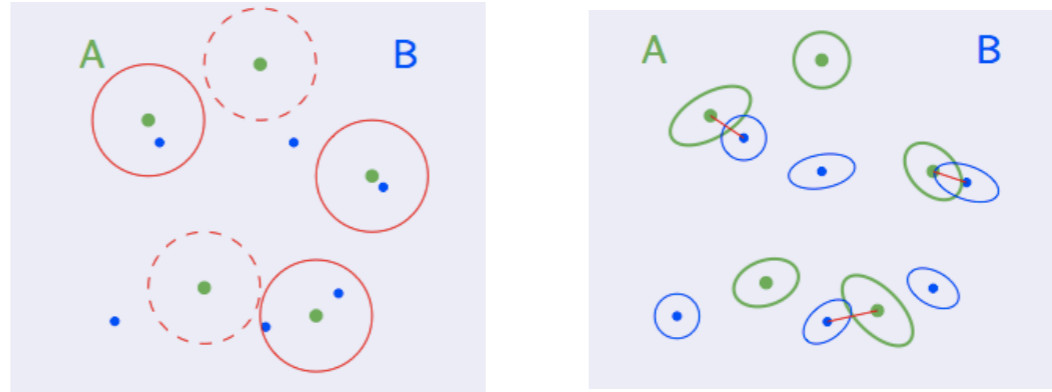# Cross-match service

Thomas Boch
François-Xavier Pineau
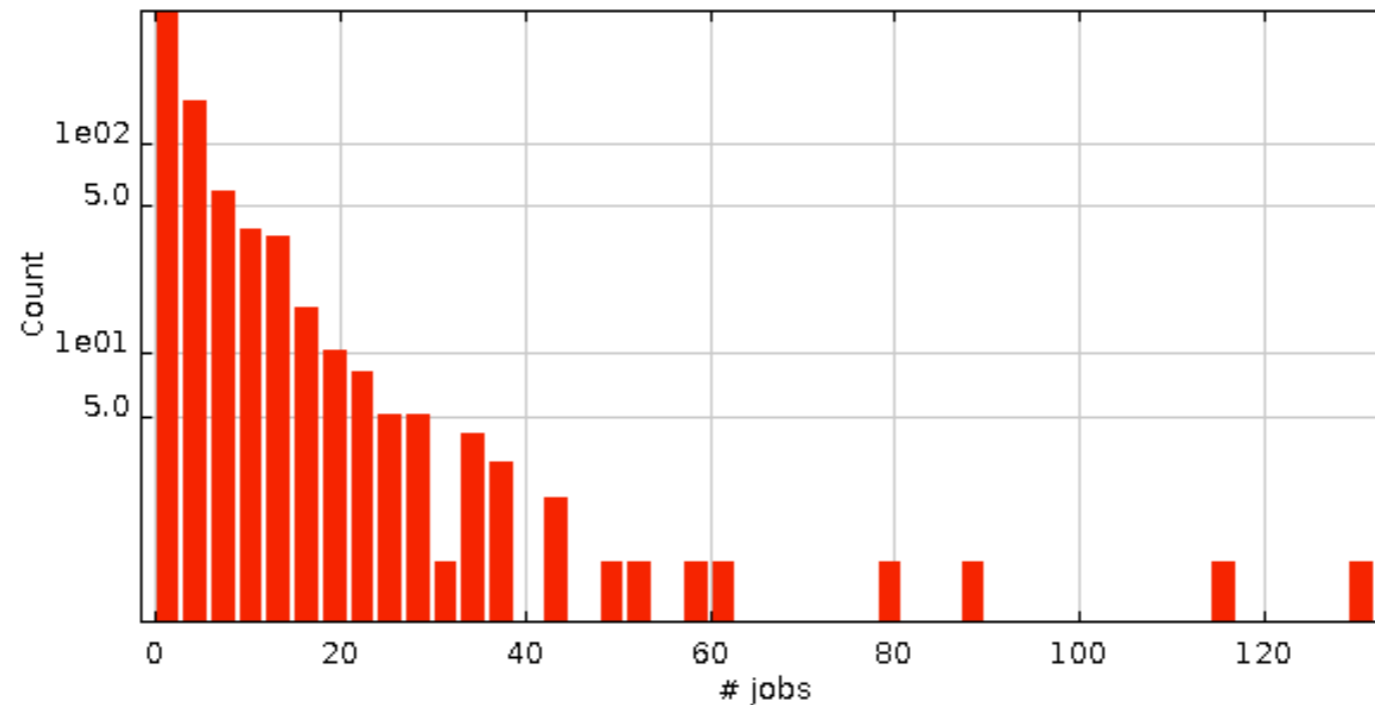Sébastien Derrière

# Introduction



- Purpose

  - Positional cross-identification of sources in 2 tables, among:

    - 10,000+ VizieR tables with positions (including large surveys)

    - a view of SIMBAD data

    - user-uploaded tables (in VOTable, FITS or CSV)

- Users retrieve result in VOTable, CSV or ASCII

- Focus on fast large-scale cross-match *(SDSS DR7 vs. 2MASS in less than 20 minutes)*

# Statistics (1/2)

- 2012 vs. 2013

|  | **2012** | **2013** (10 months) |
|---|---|---|
| # jobs | 3769 | 4314 |
| # users | 510 | 840 |

- Number of jobs per user in 2013

# Statistics (2/2)

- Most used catalogues in 2013:

  - 2MASS (8%)

  - SIMBAD (4%)

  - WISE (4%)

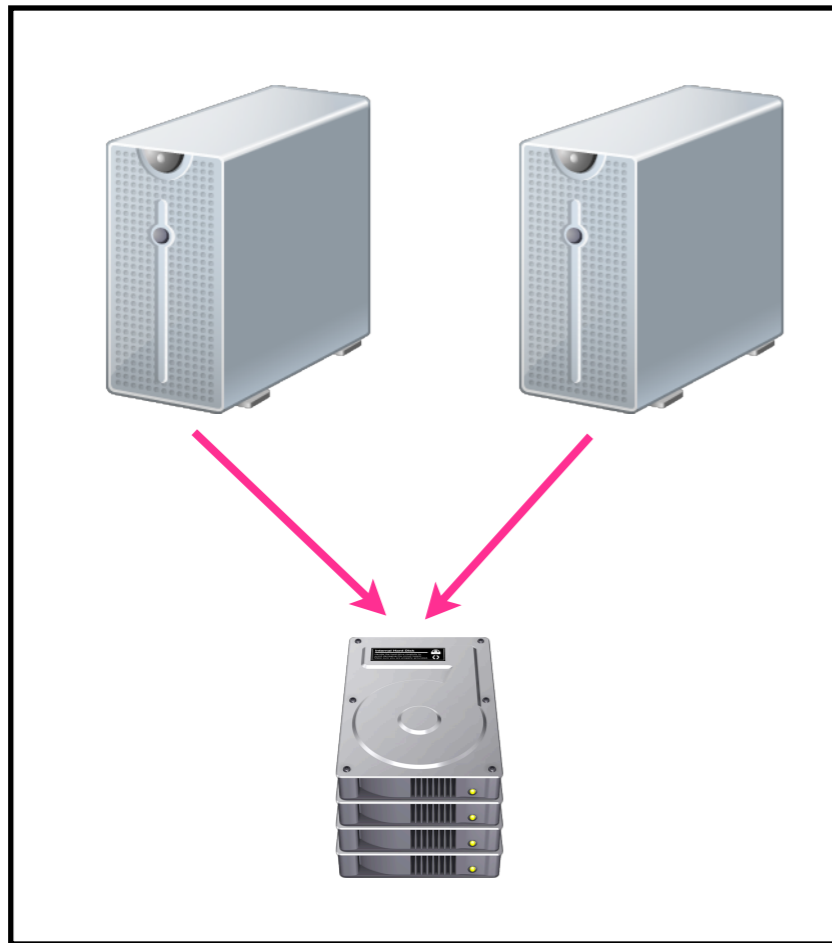- 55% of xmatch jobs submitted in 2013 include a user-uploaded table

# What's new ?

- Cross-match API

- Hardware changes

- Multi-catalogues, probabilistic cross-match R&D (ARCHES project)

# Cross-match API
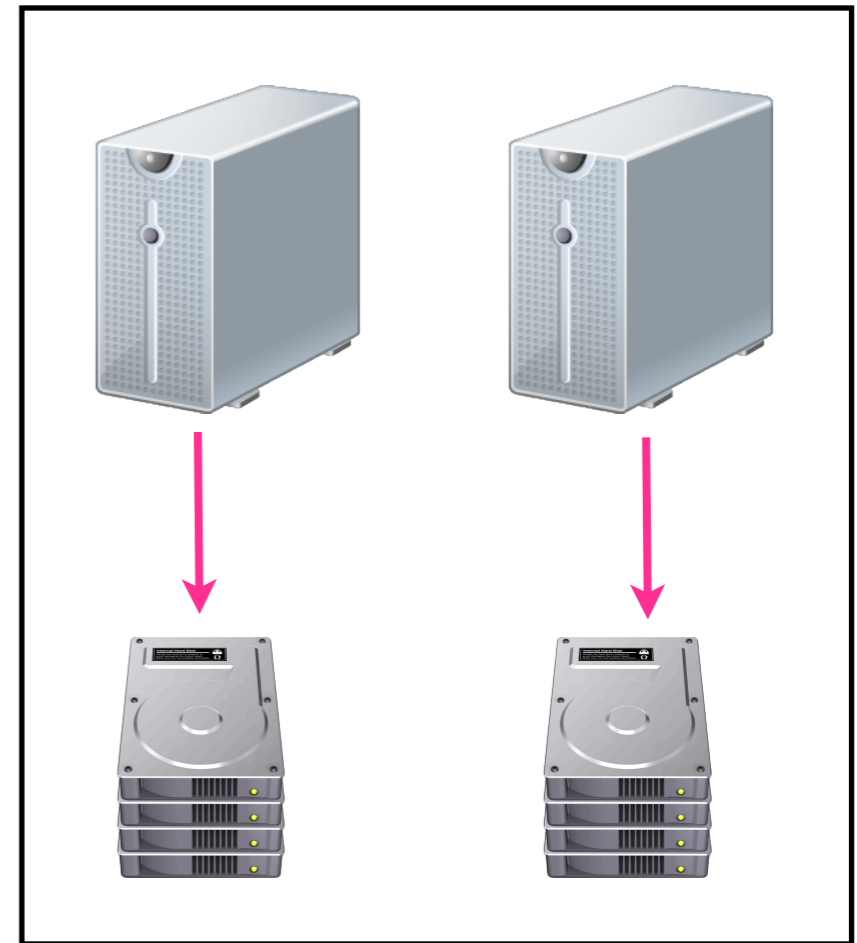## *(Application Programming Interface)*

- Released in January 2013

- Allows access to CDS cross-match engine from external tools/softwares

- Simple to use:


- Tested by VAO portal, JMMC (Grenoble)

- Will be used by TOPCAT in the coming year

- Documentation available at http://cdsxmatch.u-strasbg.fr/xmatch/doc/cross-match-API.html

# Hardware changes



**Before**:
2 computing servers accessing the same 6TB RAID drive

**Now**:
each computing server has each own dedicated 12TB RAID drive

# Cross-match in ARCHES project

- François-Xavier Pineau presentation

# Planned developments

- Improved user interface
    - easier selection of catalogues
    - easier upload of tables
- New features
    - selection of output fields
    - filtering