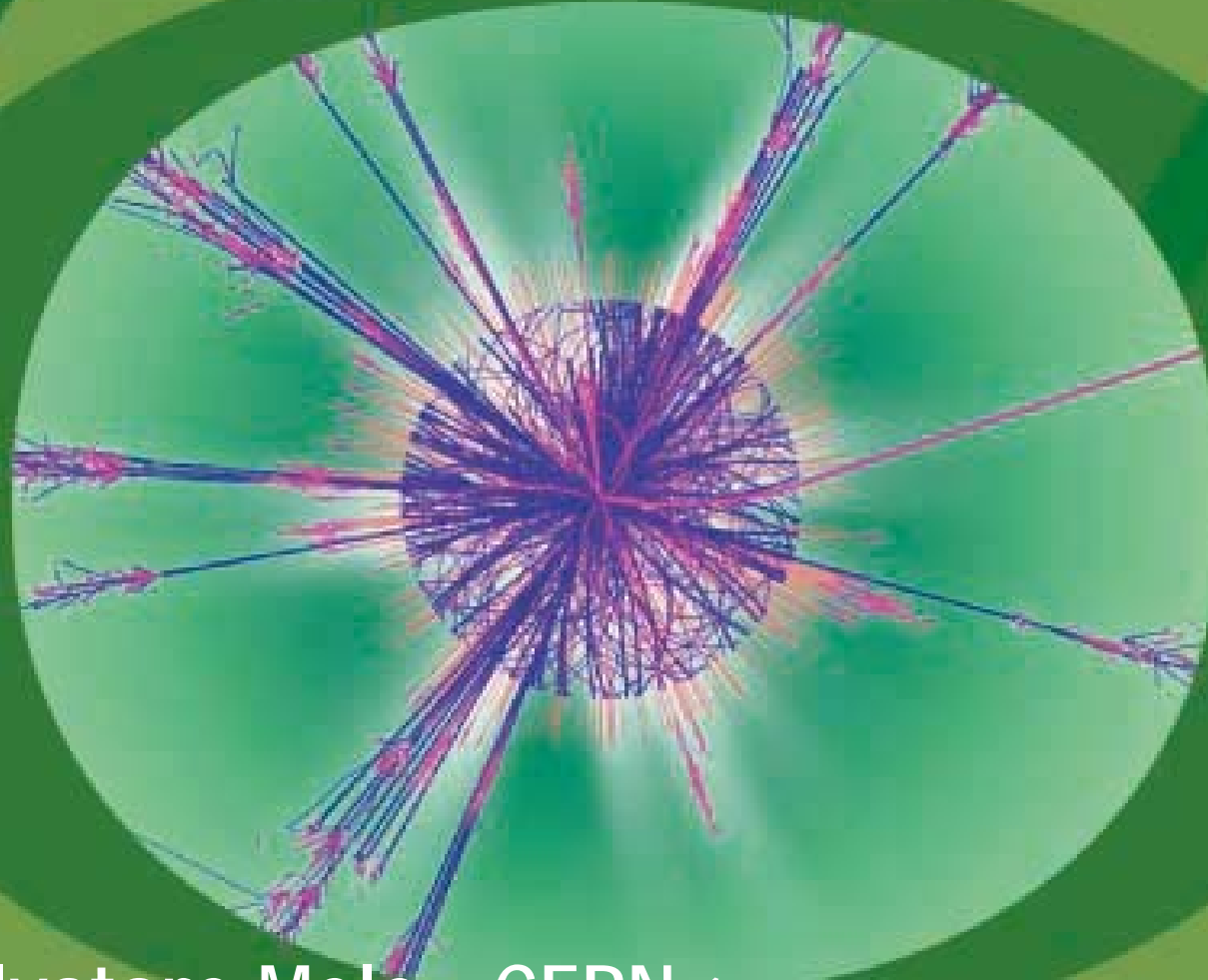


Open Access: A Model for Budget and Cost-Sharing Estimates



Salvatore Mele - CERN (Salvatore.Mele@cern.ch)

Establishing a sponsoring consortium for Open Access publishing in particle physics
CERN, 3rd November 2006

Outline

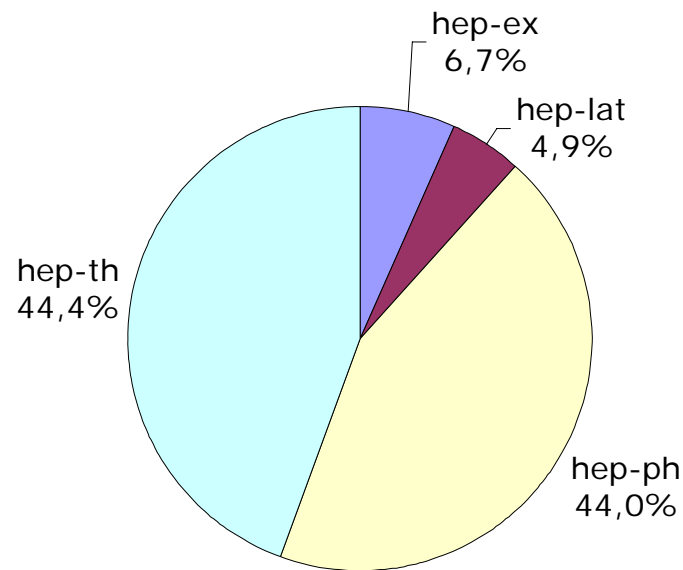
- Input data
- Budget estimate
- A model for cost sharing
- An example

Input data

All articles submitted to arXiv in 2005
and then published in peer-reviewed journals.

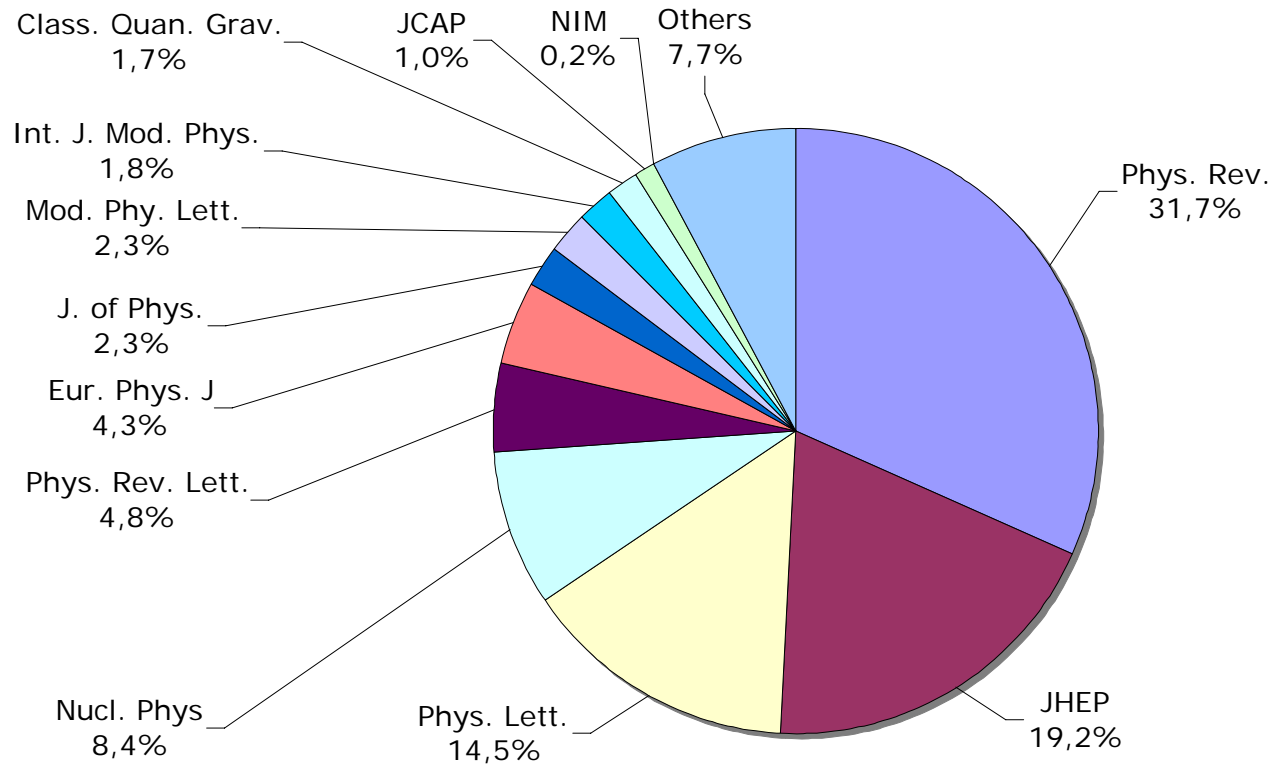
Divided in 4 categories: experiment, lattice, phenomenology and theory

Breakdown of HEP articles by discipline



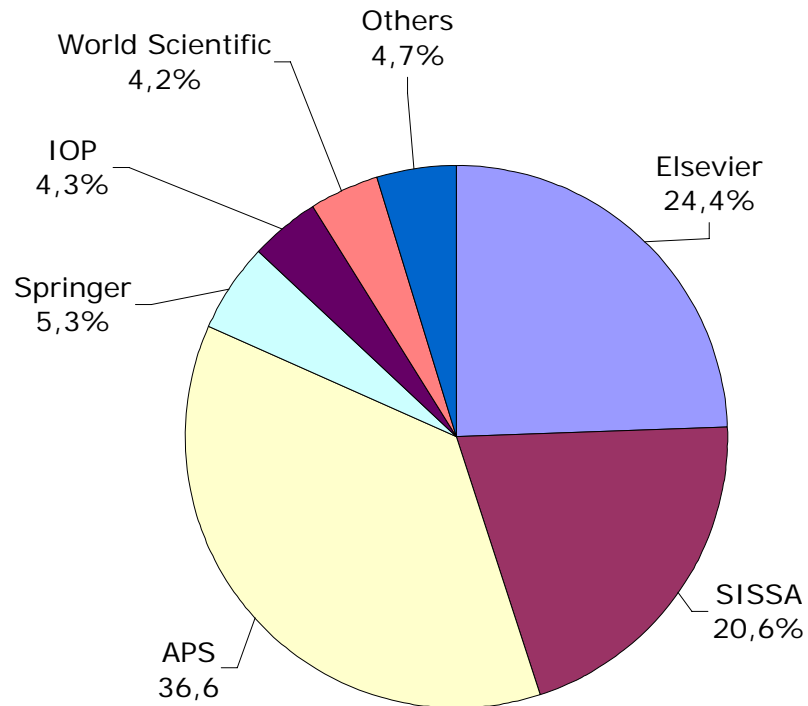
Total: 5015 articles

Distribution by journal



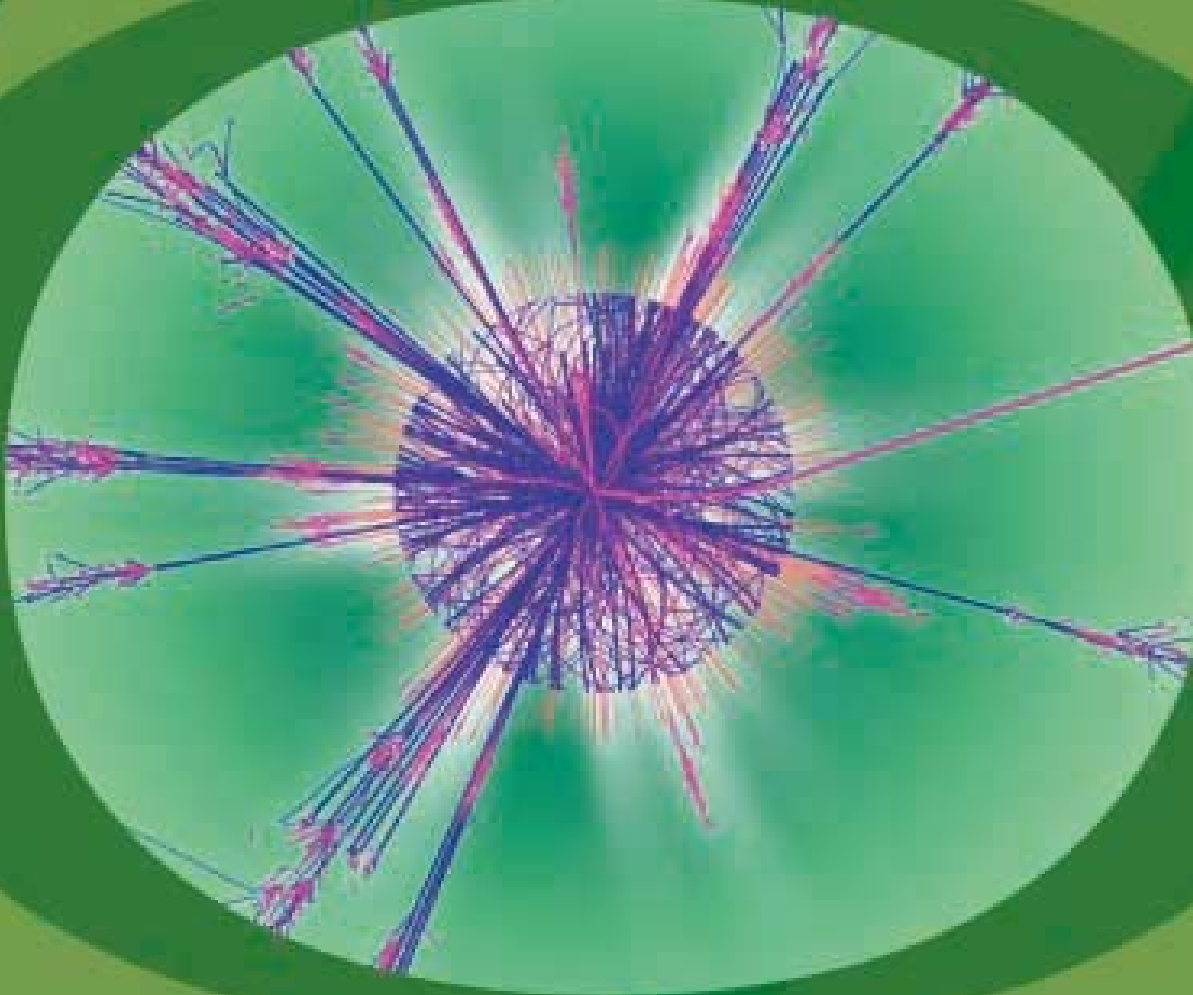
83% of articles published in 6 leading journals

Distribution by publisher



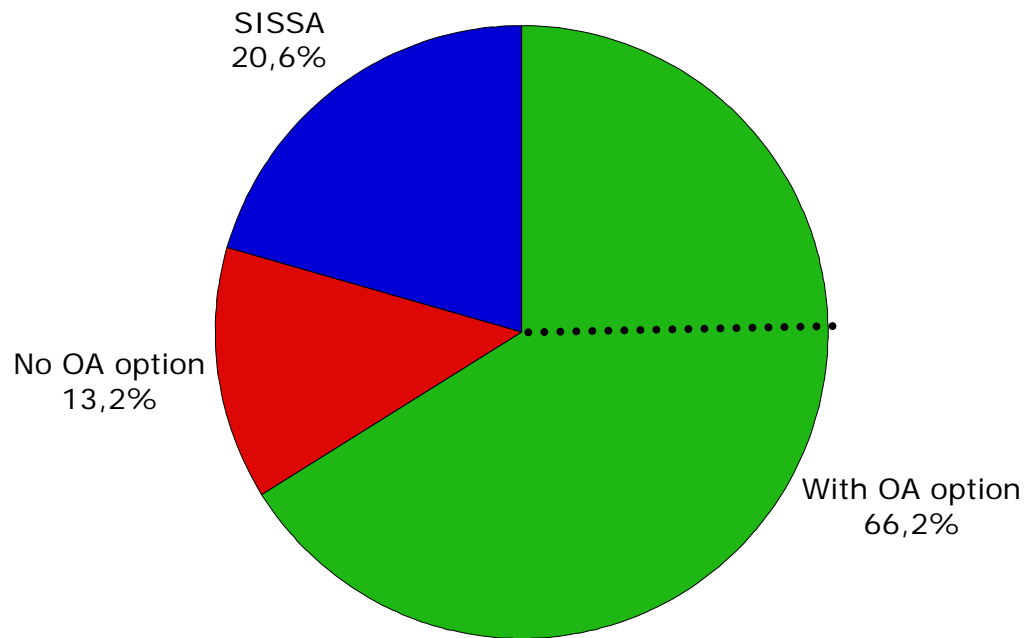
87% of articles published by four publishers

Budget Estimate



Hybrid Model

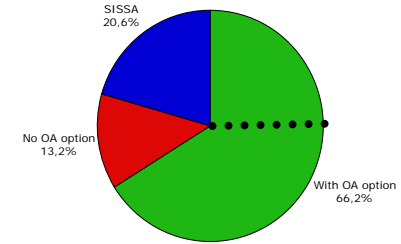
Most journals offer Author-Pays Open Access on a pay-per-article scheme



Nucl.Instr.Meth. A+B	3000\$/article
Nucl.Phys. A+B	3000\$/article
Phys.Lett. A+B	3000\$/article
Astrop.Phys.	3000\$/article
Eur.J.Phys. A+C	3000\$/article
	1000€
Phys.Rev. A-E	975\$/article
Phys.Rev.Lett	1300\$/article
J.App.Phys.	1800\$/article
J.Math.Phys.	1500\$/article

“Reasonable” hypothesis: SISSA journals at 1000€/article

Possible scenarios



- High-cost scenario
 - OA journals at face value
 - Non-OA journals at 3000\$/article
 - SISSA journals at 1000€/article
- Mid-cost scenario
 - OA journals at face value
 - Non-OA journals at 1000€/article
 - SISSA journals at 1000€/article
- Low-cost scenario
 - APS journals at face value (975\$-1300\$/article)
 - SISSA journals at 1000€/article
 - All other journals move to 1000€/article
- Sponsorship cost of a journal à la JHEP

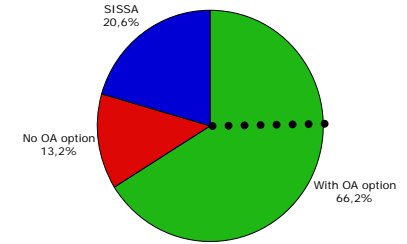
11.5 MCHF

10.0 MCHF

7.4 MCHF

1.2 MCHF

Possible scenarios



- High-cost scenario
 - OA journals at face value
 - Non-OA journals at 3000\$/article
 - SISSA journals at 1000€ /article
- Mid-cost scenario
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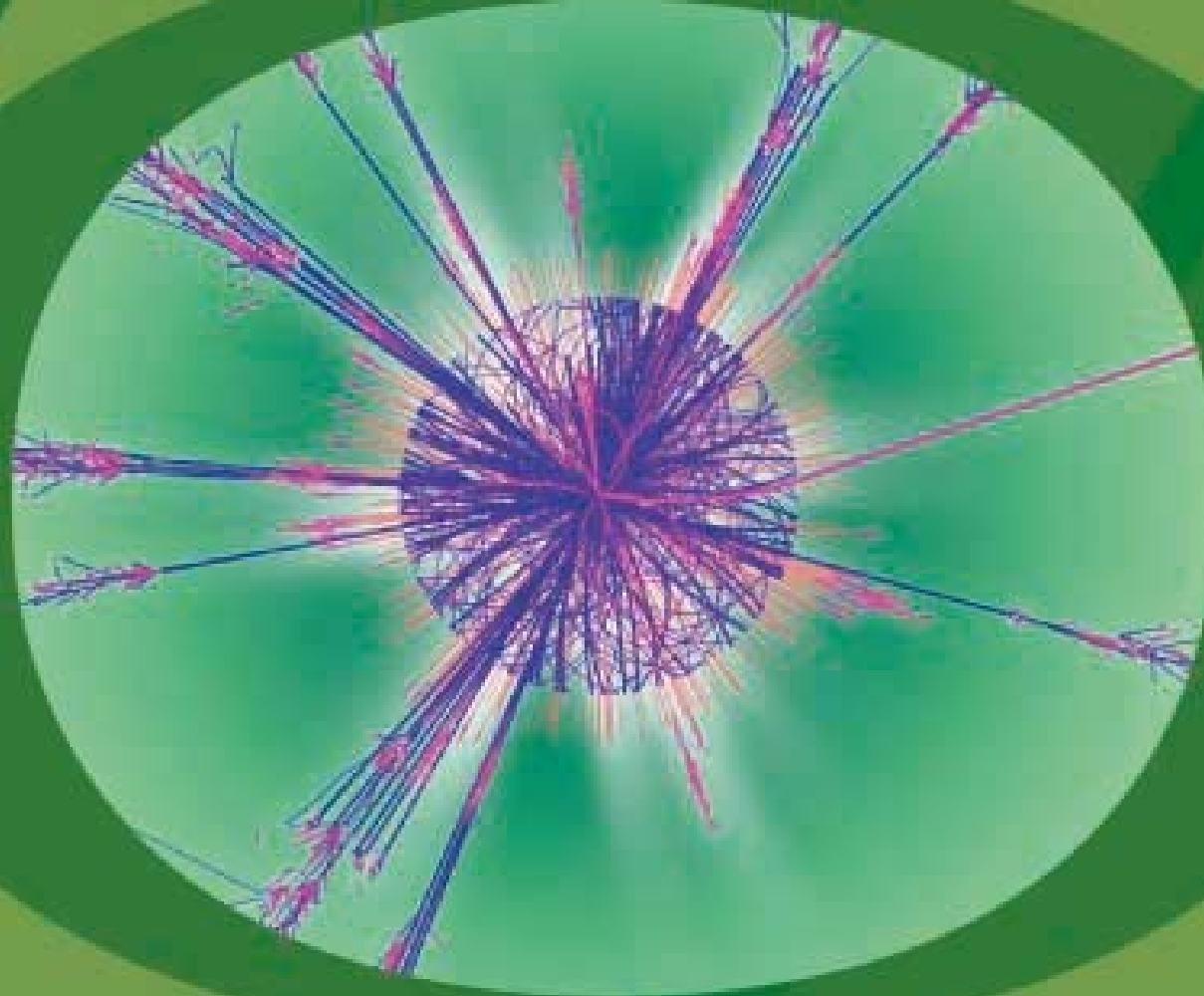
7.2 M€

6.3 M€

4.6 M€

0.8 M€

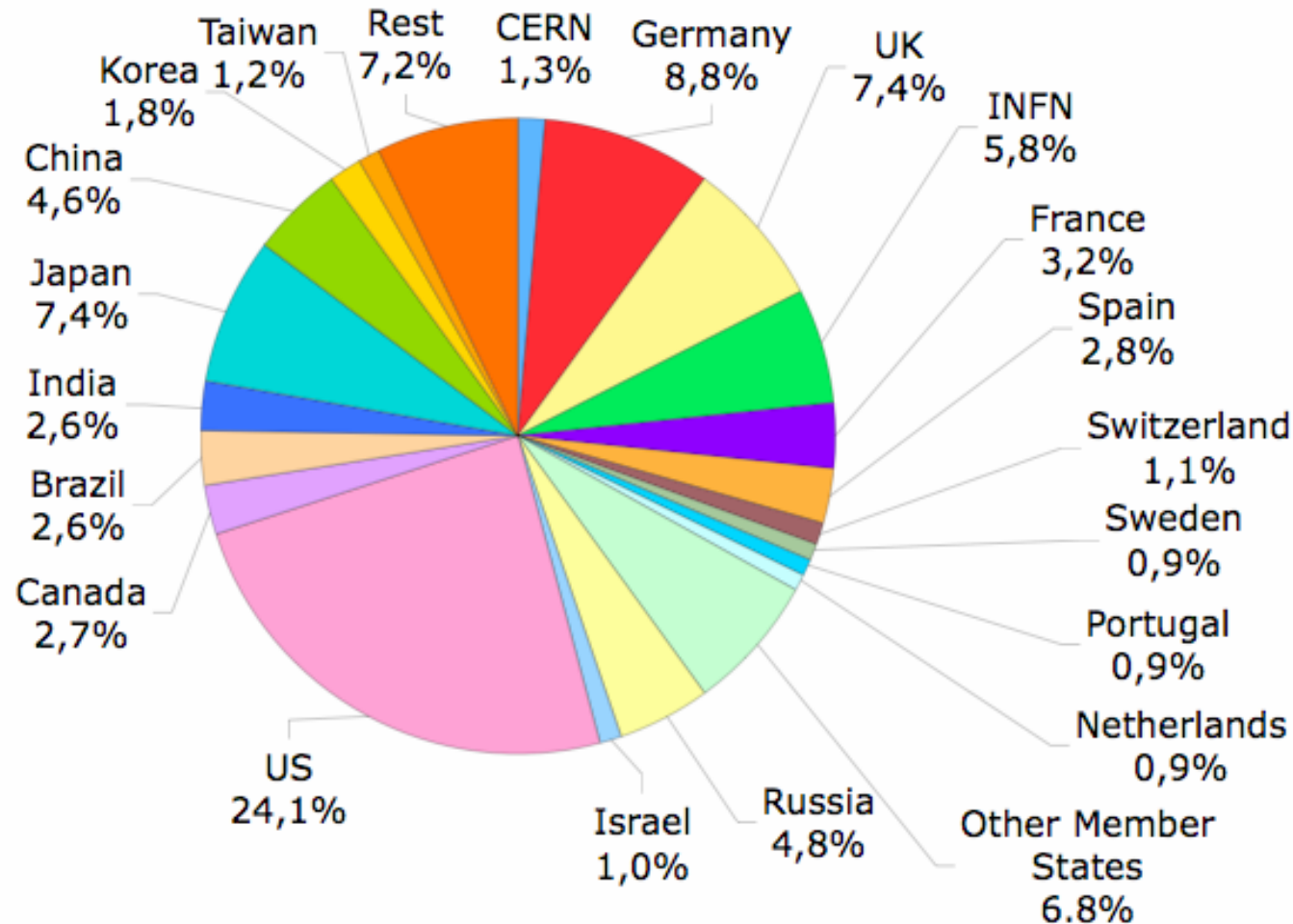
Cost-Sharing Scenario



SCOAP³ financing

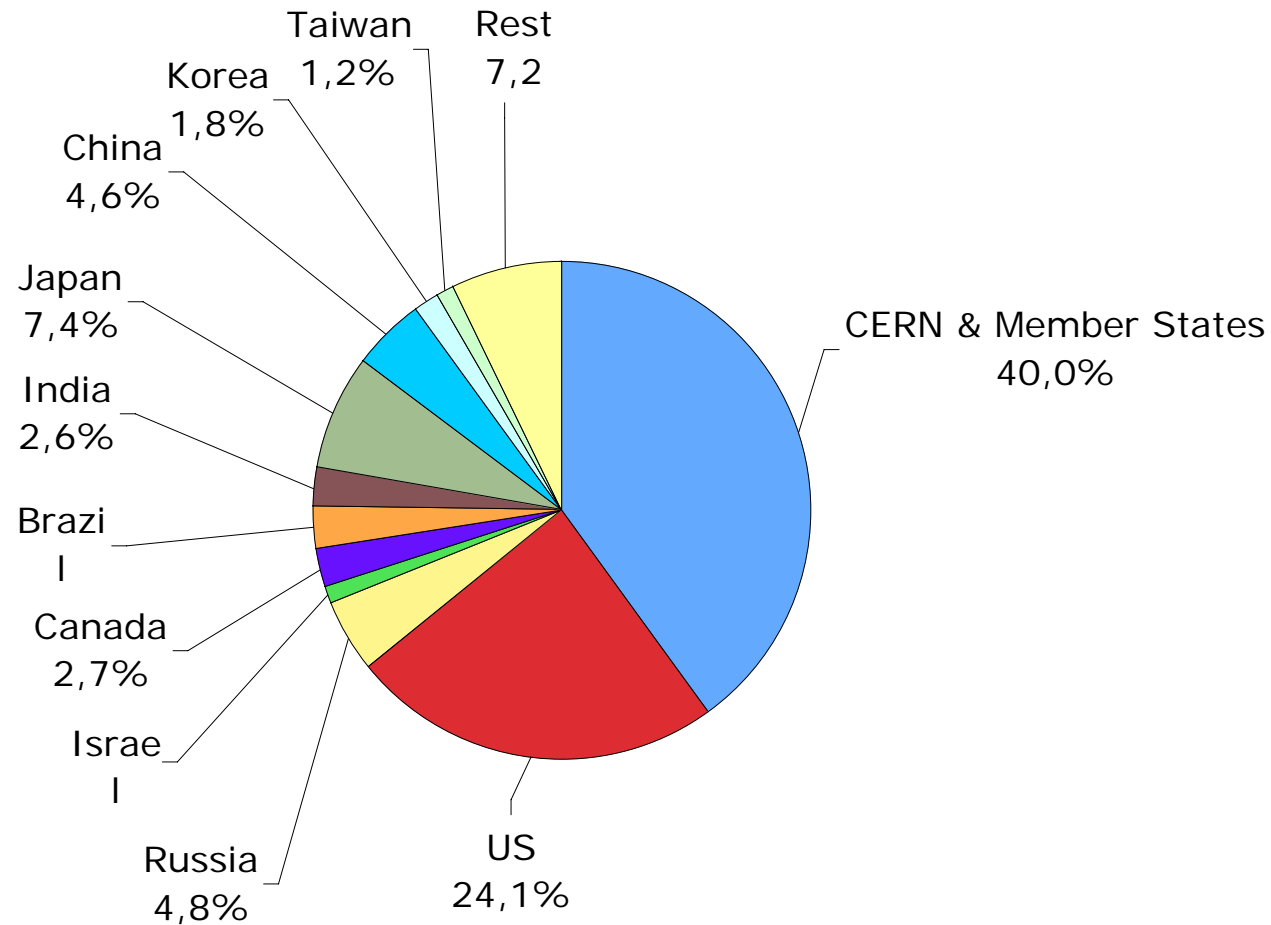
- SCOAP³ total cost depends on the OA scenario it will achieve (high-cost, low-cost, sponsorship, mixed, ...).
- SCOAP³ financing to be distributed according to a “fair-share” model.
- A “fair-share” model can be based on the stakeholding of HEP articles of each partner.
- Share SCOAP³ contributions according to the distribution of HEP articles per country/institution?

Distribution of HEP articles

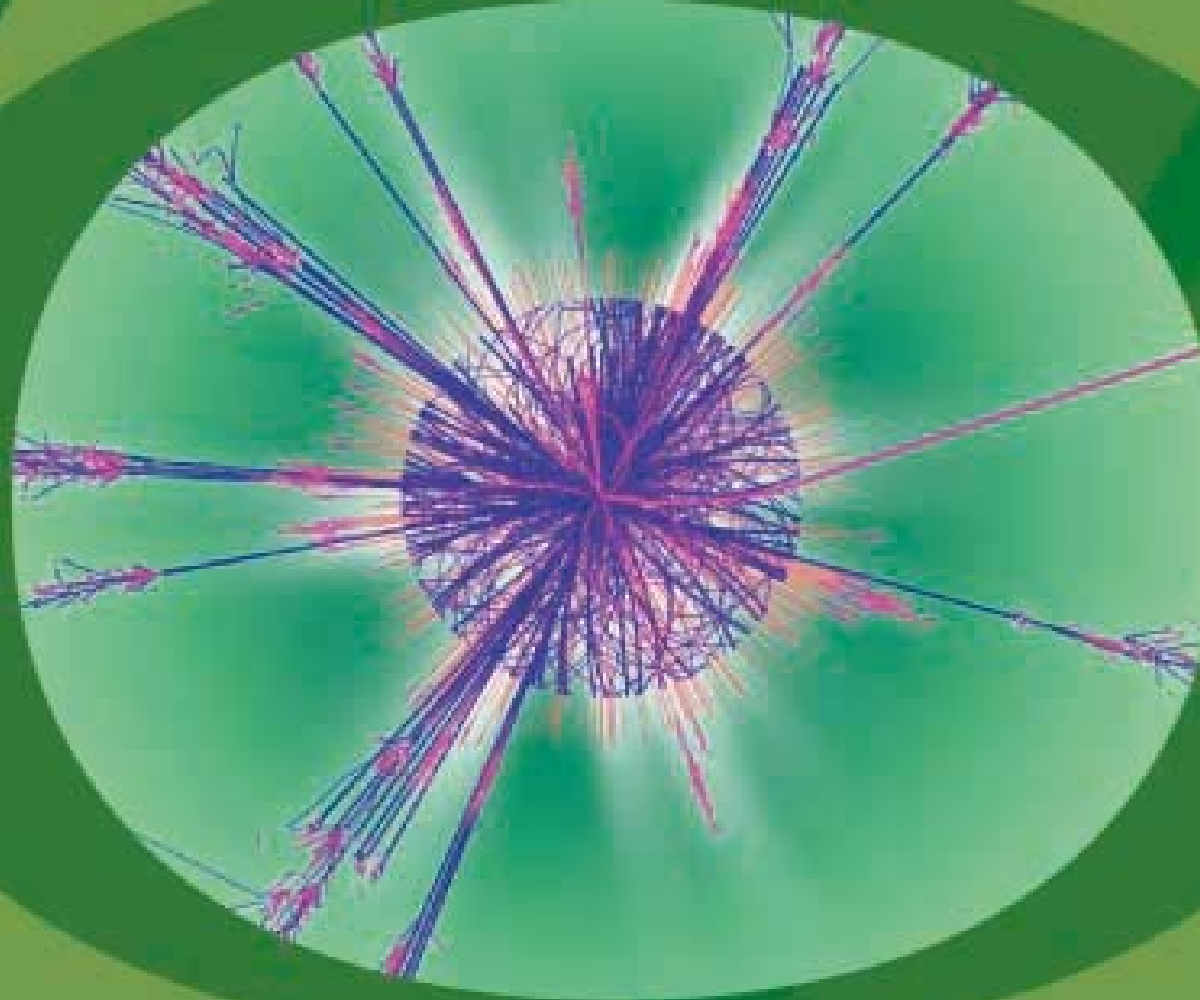


Co-authorship is taken into account assigning articles to countries/institutes on a *pro-rata* basis

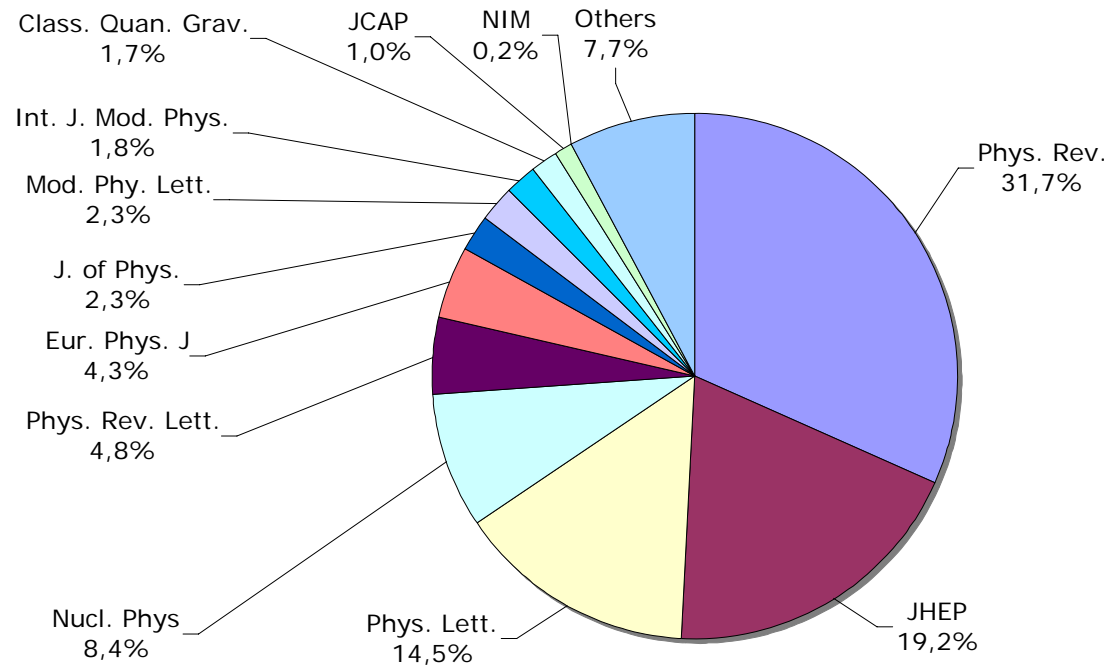
Distribution of HEP articles



An example



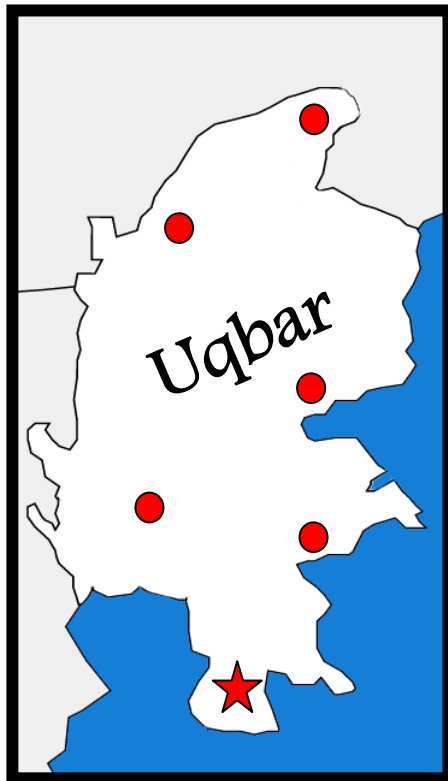
Six journals account for 83% of articles



Subscribing to these six journals costs a medium-sized university **100kCHF±15%**

- Some prices decrease with number of titles, large consortia, ...
- Some prices increase for few subscriptions, paper copies, ...

Uqbar has six medium-sized universities
active in HEP reasearch
which account for 1% of HEP articles



- Subscriptions to the six leading journals for the six universities cost Uqbar **510-690kCHF**
100kCHF \pm 15%/university x 6 universities
- Uqbar 1% share in HEP publishing translates in a SCOAP³ contribution of **74-115kCHF**
1% of 7.4-11.5MCHF OA cost