Popular Physics in History

Correlating their contributions to Physics and collaborations with fellow physicists..



<u>Team</u>

Wiki:

https://github.com/arcolife/popular-physics/wiki

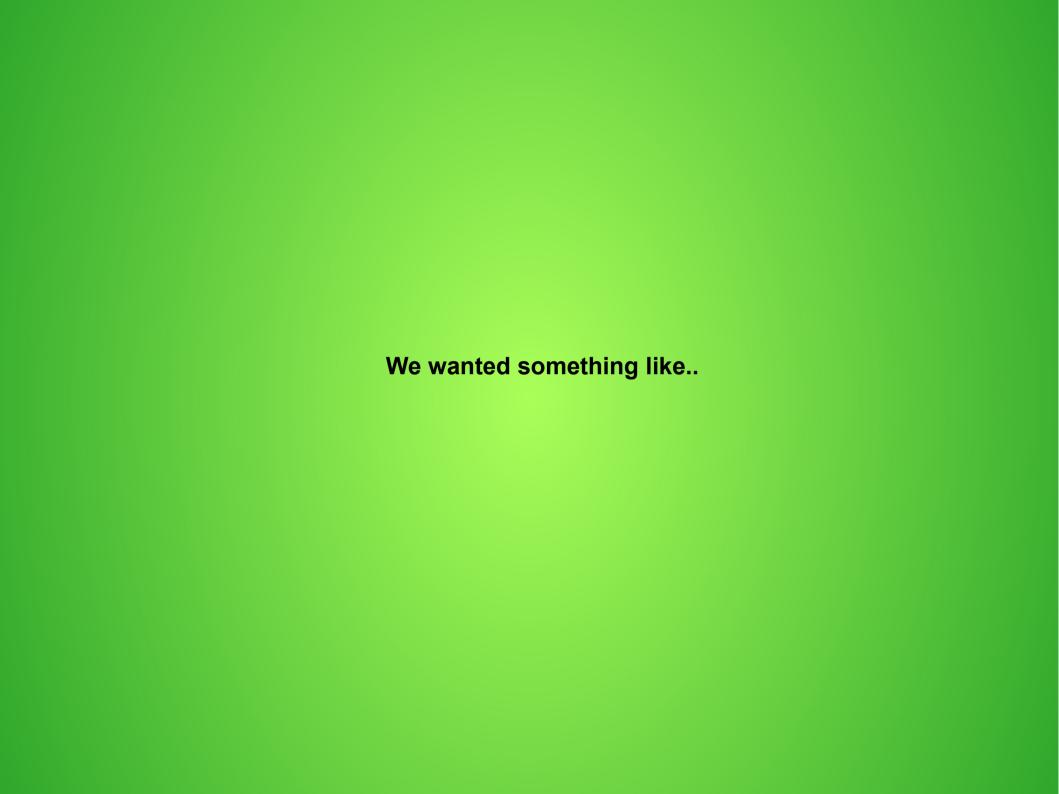
Repository:

https://github.com/arcolife/popular-physics

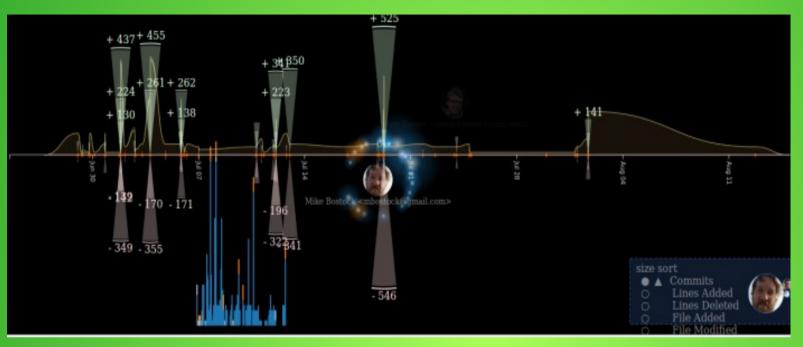
- Archit Sharma (Twitter / @arcolife)
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- Marco Guerri (FB / marco.guerri.39)
- Xiaoli Zoe Chen (FB / soyoungsogone)

So..

we decided to correlate topics published by physicists over time, their contributions/collaborations with fellow physicists and their popularity as well as popularity of their work in subsequent years.



This!







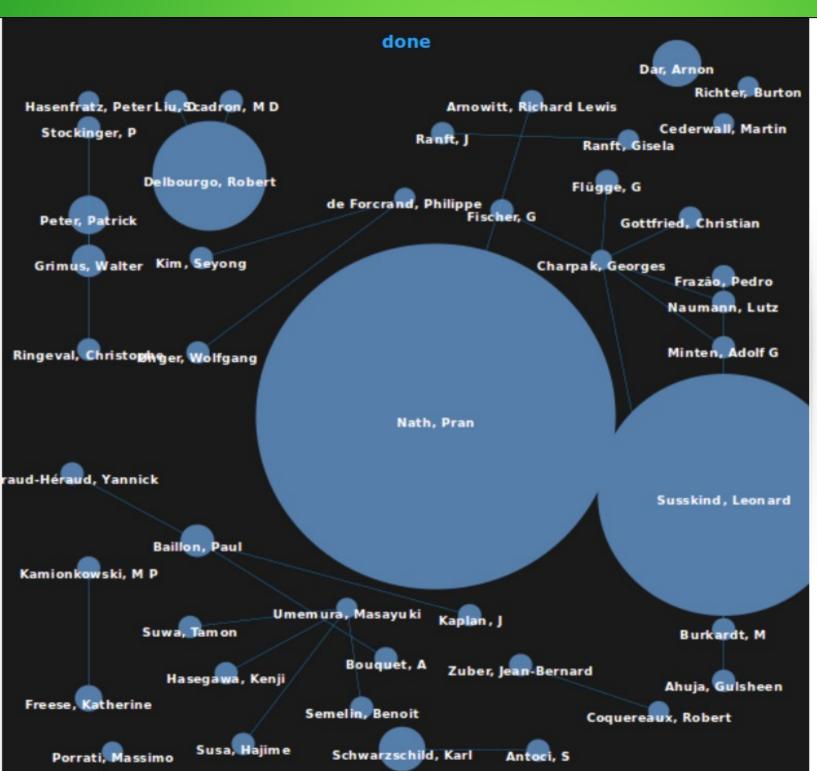
However..

.. the final result was something like ..

Drum roll..Drum roll..Drum roll..Drum roll..



Drum roll..Drum roll..Drum roll..Drum roll..:P



Nath, Pran

Keywords:

- · on
- scale
- · LHC
- exchange
- leptonic
- decay
- weak
- · two
- + cwo
- boson
- constraint
- mass
- enhancement
- correlation
- effect
- correction
- Higgs

TaaDAAA! This :D

A few bottlenecks#

- Taking a DB dump from CERN's Document Servers CDS and INSPIRE.
- And moreover, converting them and uploading them to our own local instance.

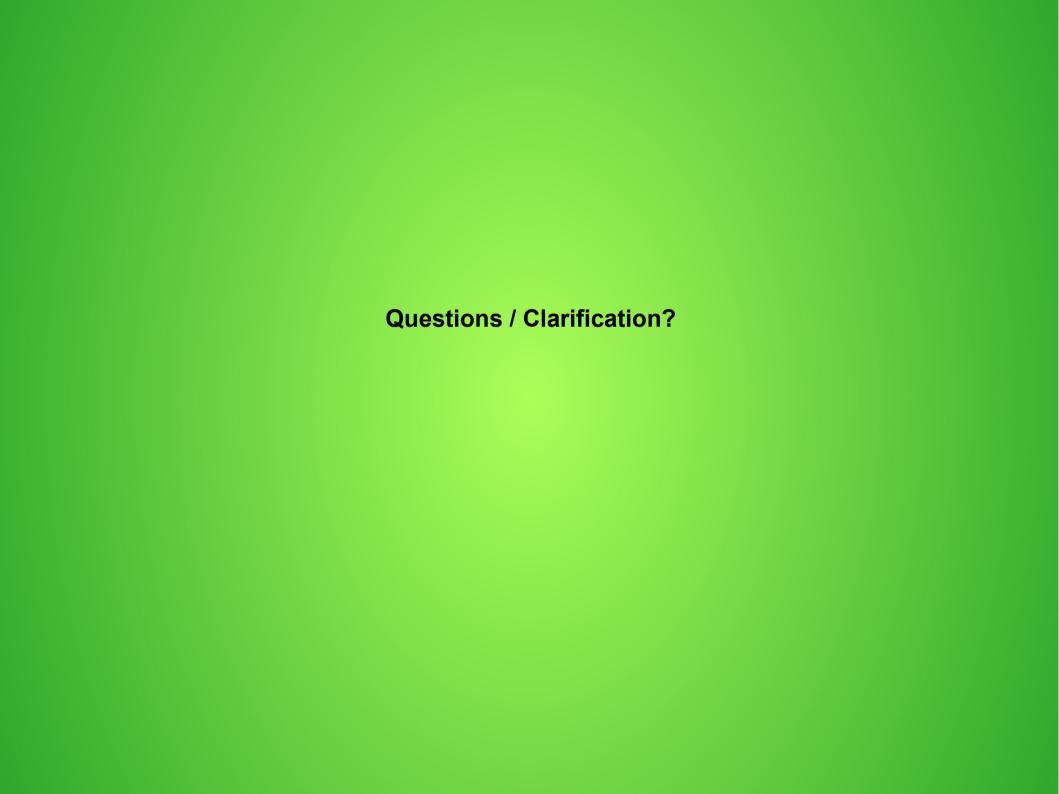
 (So here is the # of documents we handled in 2 days: approximately 2 million. Yeah, 2,000,000)
- Limited processing powers from normal Laptops and Desktop computers (ok. It was intel core i5 & i7 that we had, but still, processing those huge amounts, ...swamps even that kind of CPU!)
- Keyword error investigation
 (Data redundancy / deficiency / non-uniform availability across all documents, issues! =.=)
- Visualizing that kind of data sifting through available visualizations, bringing them in proper format.
- All over, it was the time, which gave us the goosebumps.

'Additional Information'

- ** Primary metadata requirements are:
- Topic
- Author(s)
- Co-author(s)
- Abstract
- Citations
- Year
- References
- Top Cites, yearly distributed index(if possible)
- keywords list per record (if it exists?)
- A link to plain text downloads for all records

~~ FUTURE PLANS ~~

- → To further enhance the quality of data sets and the visualization part as well.
- → To add more visualizations and make it attractive, and set up a 'CrowdCrafting Project' to involve more people in the development process.
- → If possible, put up a public interactive website, mobile/tablet apps out of this and help spread the word about Science (especially Physics)
- → To think about its possible applications in various fields, for example: Journalism.



Thank You!

:)



/arcolife/popular-physics