

## User

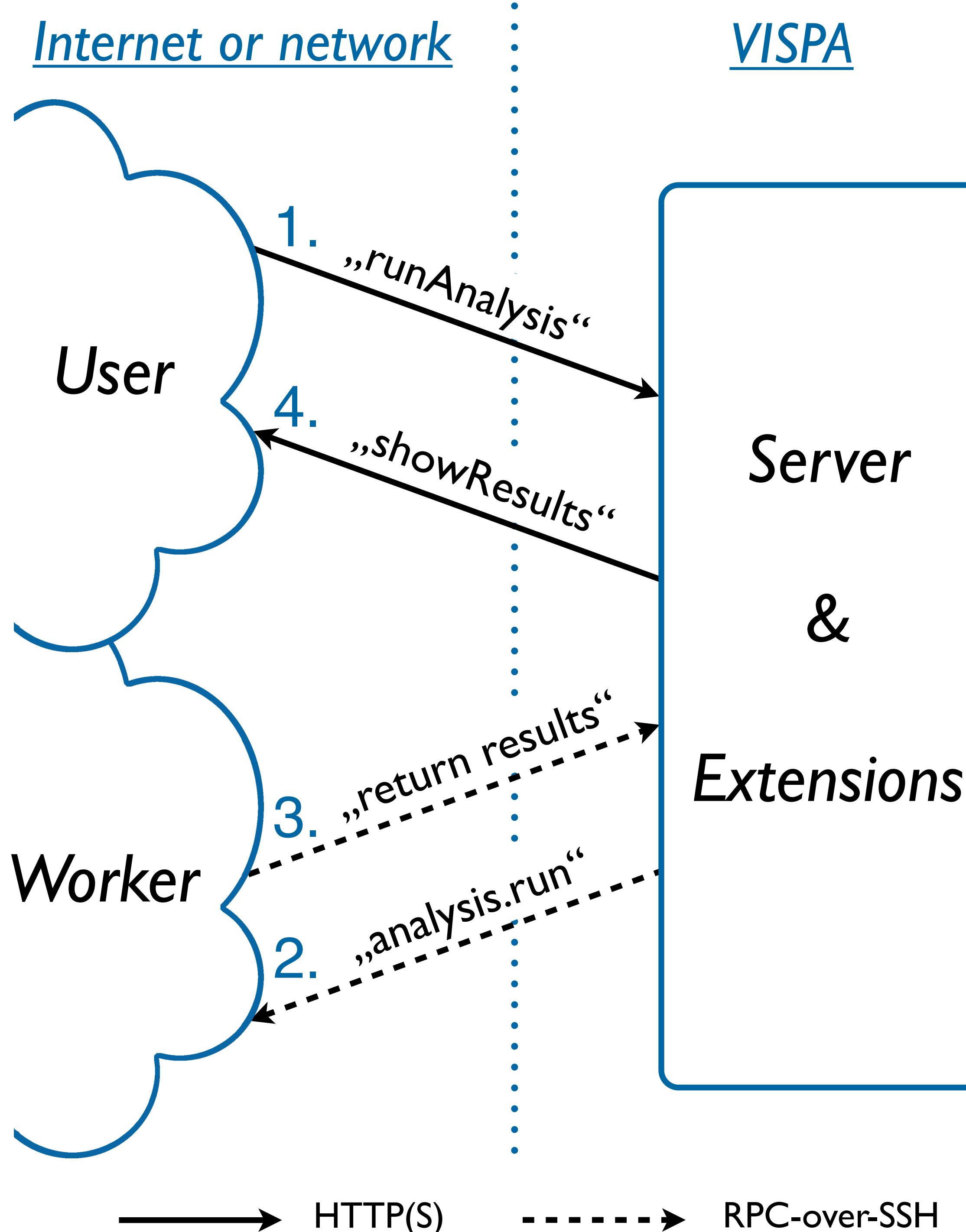
- Physics analyses & user code execution independent of
  - location and time
  - operating system
  - device
- Requirement: a standard web browser



## Worker

- Any machine can be a worker
- Requirements: Python and SSH access
- Dependencies automatically transferred

## Setup with RPC



## Server

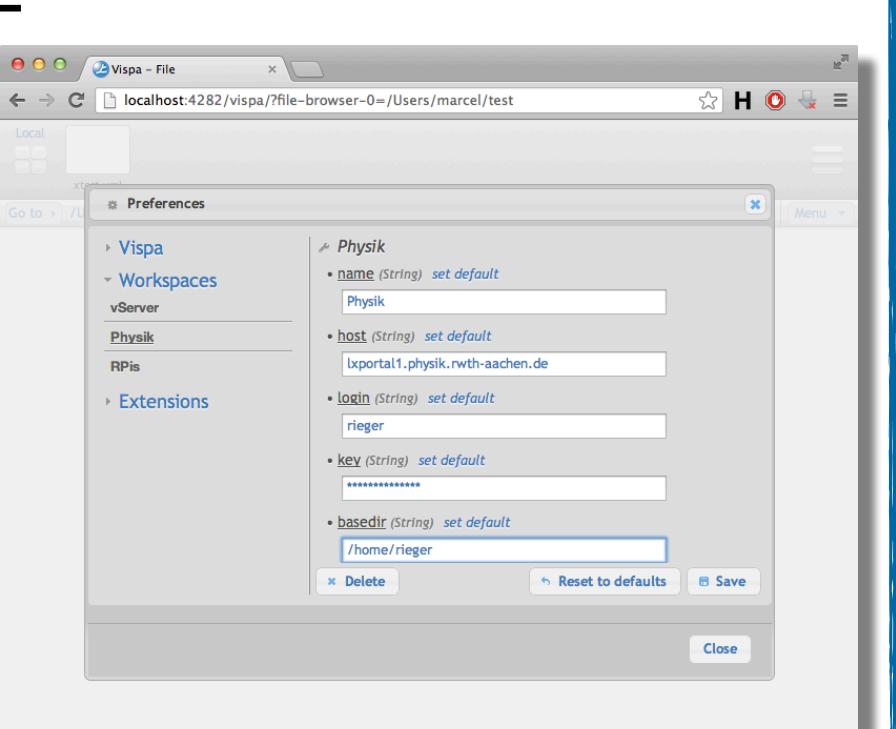
- Implemented in Python with only few dependencies
- Web framework CherryPy
- Provides
  - user management
  - worker management
  - main GUI
  - preference system (SQL)
  - extension framework
- Easily create customized extensions
  - possibility to add core functionality
  - extend GUI content to experiment-specific software
  - languages:
    - Python (Server)
    - HTML/JavaScript (Client)

## Analysis Workflow

### Select a worker

default: RWTH Server

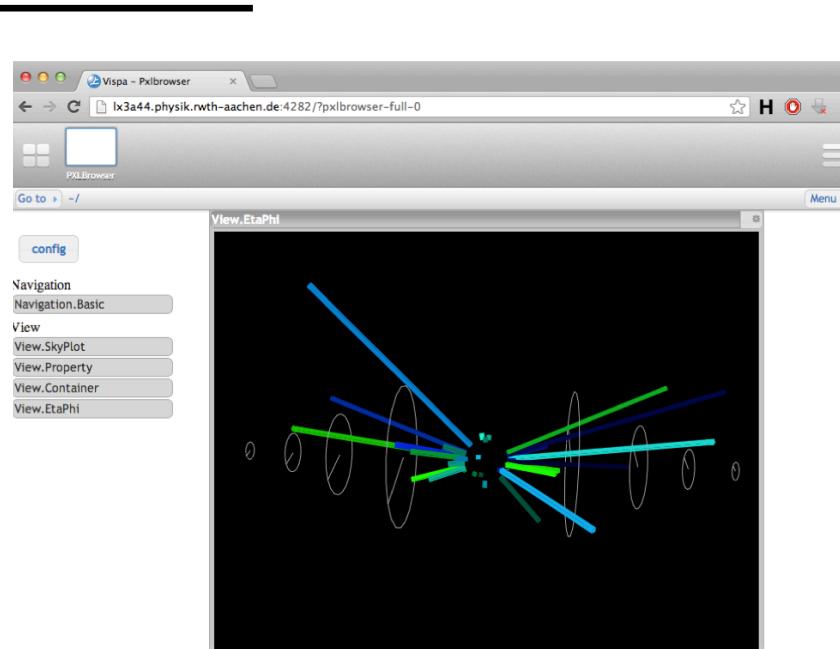
- enter SSH-specific data
- necessary files are automatically transferred



### Browse physics data

PXL

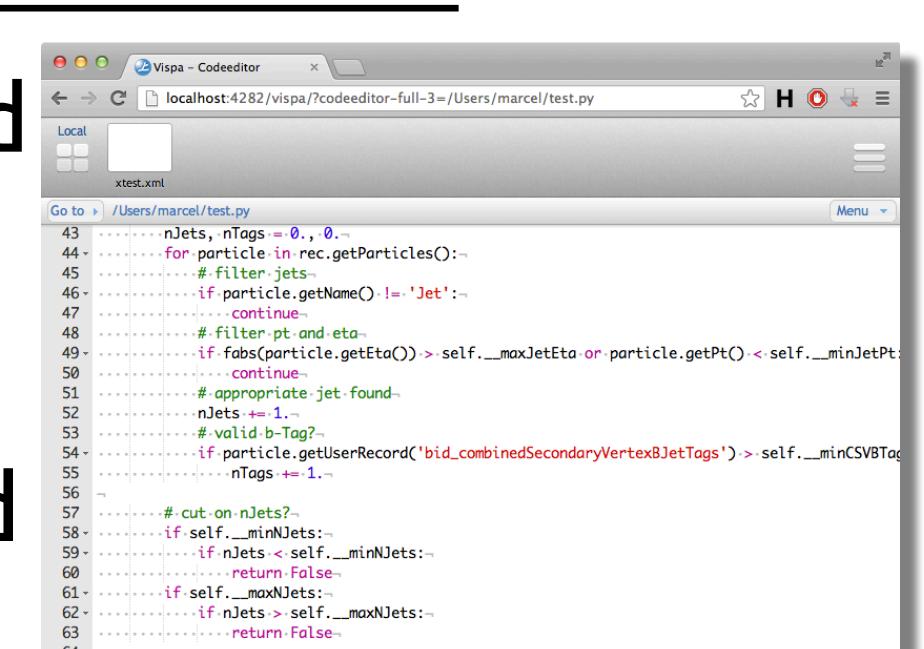
- inspect data event-by-event
- based on the Physics eXtension Library



### Write analysis modules

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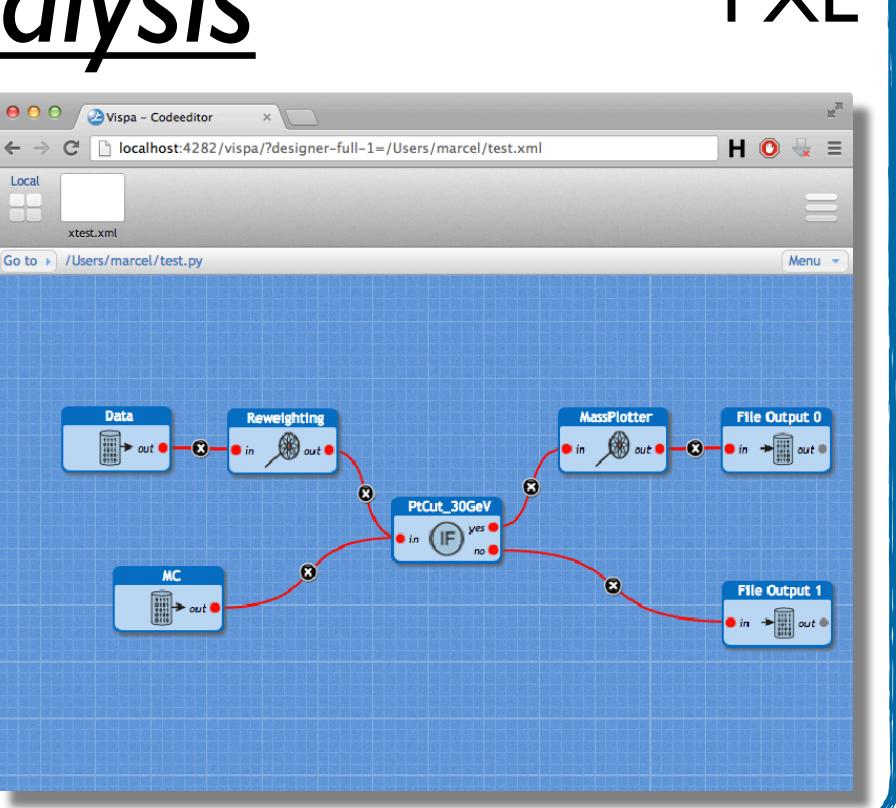
- browser-based Ace Editor
- option: download/upload source code



### Create your analysis

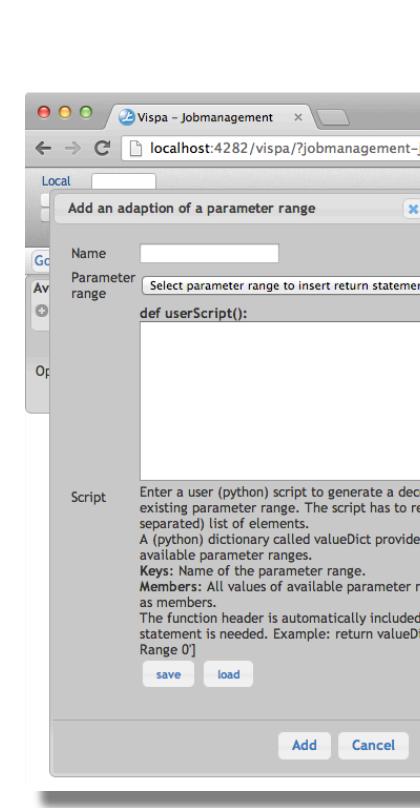
PXL

- re-usable Modules and Collaboration-wide access



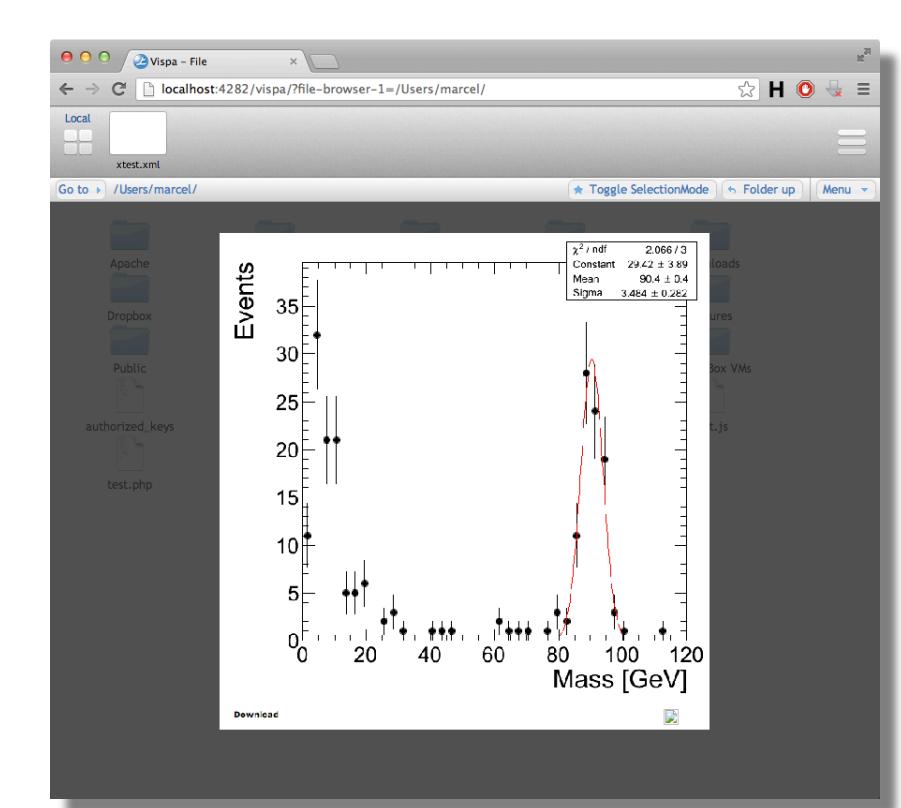
### Run your job

- batch jobs
- processing on your worker
- data transfer not required



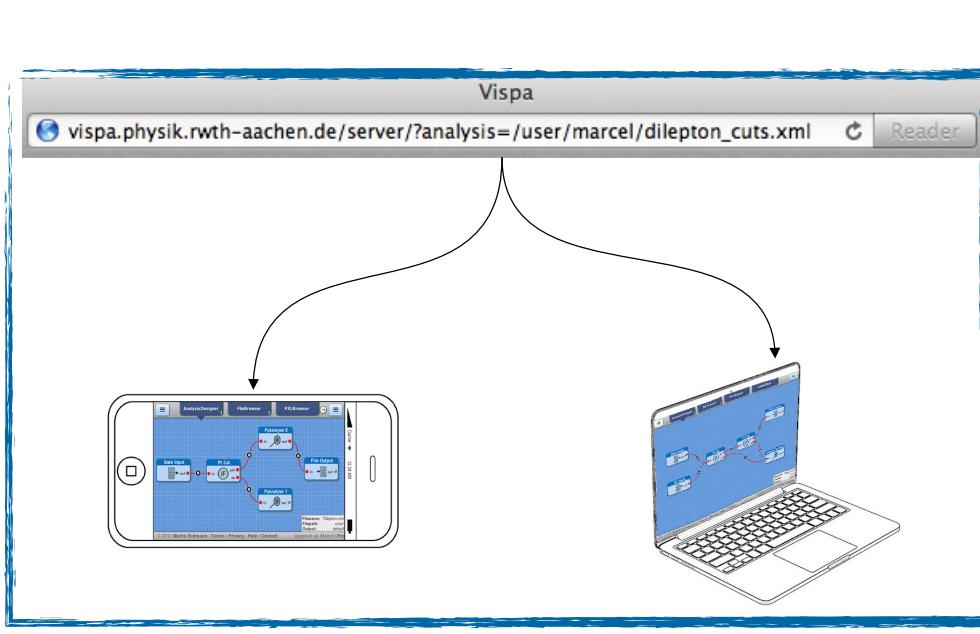
### Get results

- directly inside the browser
- up-/download



## Share your Analysis

- Use the URL to send or receive links to analyses
- No safety issues since workspaces are known
- Seamless, collaboration-wide analysis exchange



## Demo Server and Repository

- Register and try it out at

<http://vispa.physik.rwth-aachen.de/server>

- Repository:

<https://forge.physik.rwth-aachen.de/projects/vispa-web>

