Academic career-development in the EU

Frontiers and Careers in Nuclear and Hadronic Physics

29th — 30th October 2023

Giannis Koutsou,

Computation-based Science and Technology Research Center,
The Cyprus Institute

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Outline

Some context

- Speaker's perspective

Academic career opportunities — Europe

- Faculty and non-faculty opportunities

Funding

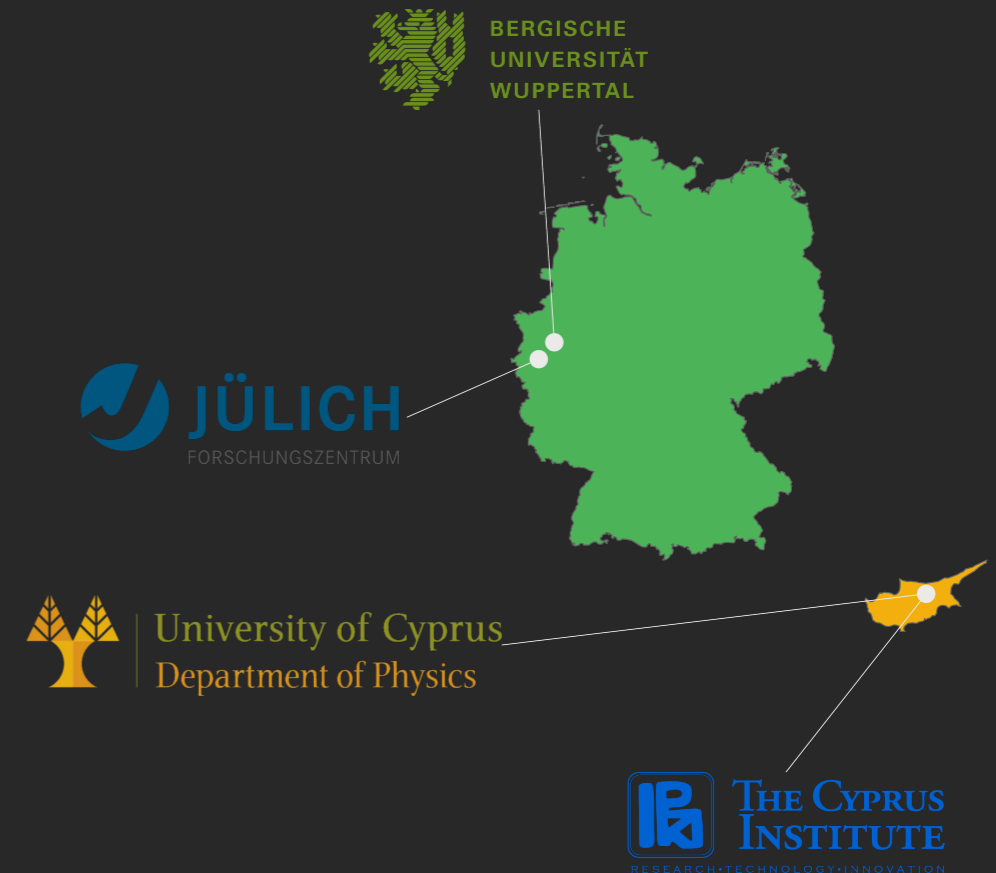- National and European funding opportunities

Your questions

- Including some *ad hoc* suggestions

Speaker's path — for context

My career path

- 2004 — 2008 PhD from University of Cyprus (Theoretical Physics)
- 2008 — 2011 Postdoc (at the same time)
  - *Guest Scientist*, Jülich Supercomputing Center
  - *Postdoctoral researcher*, University of Wuppertal, department of Physics
- 2011 — 2013 Assoc. Research Scientist at The Cyprus Institute
- 2014 — 2021 Assist. Prof. at The Cyprus Institute (tenure track)
- 2022 — now Assoc. Prof. at The Cyprus Institute

BERGISCHE
UNIVERSITÄT
WUPPERTAL

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FORSCHUNGSZENTRUM

University of Cyprus
Department of Physics

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Current status — for context

Current unit

- Computation-based Science and Technology Research Center
- Multi-disciplinary — not your typical physics department
- More research-focused; Only graduate programs

Interests

- Computational study of strong interactions — *Lattice QCD*
- Nuclear and hadron structure via large-scale simulations
- Common group with University of Cyprus
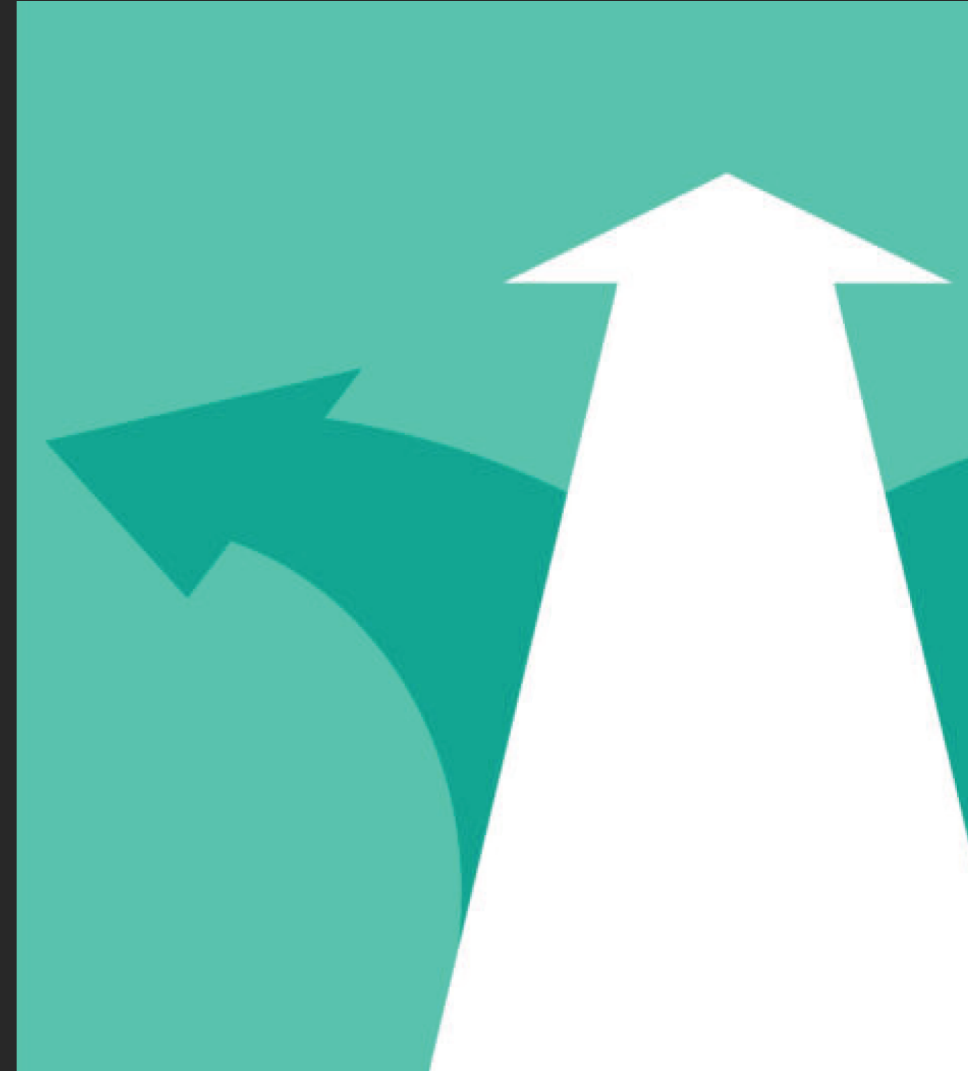- Collaborations include Extended Twisted Mass collaboration
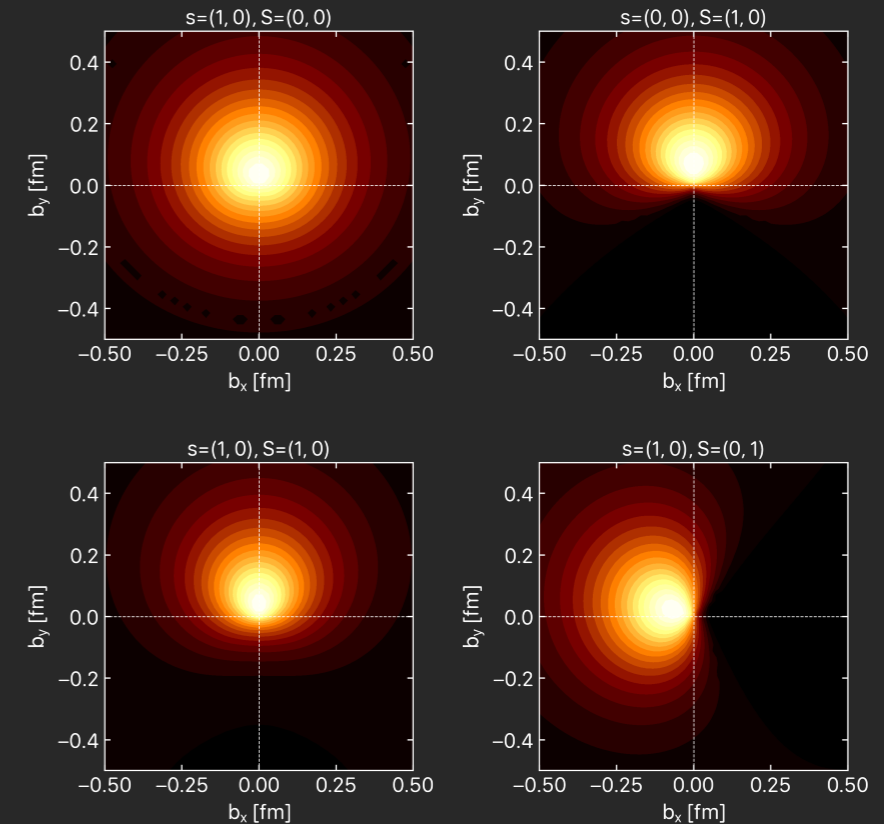
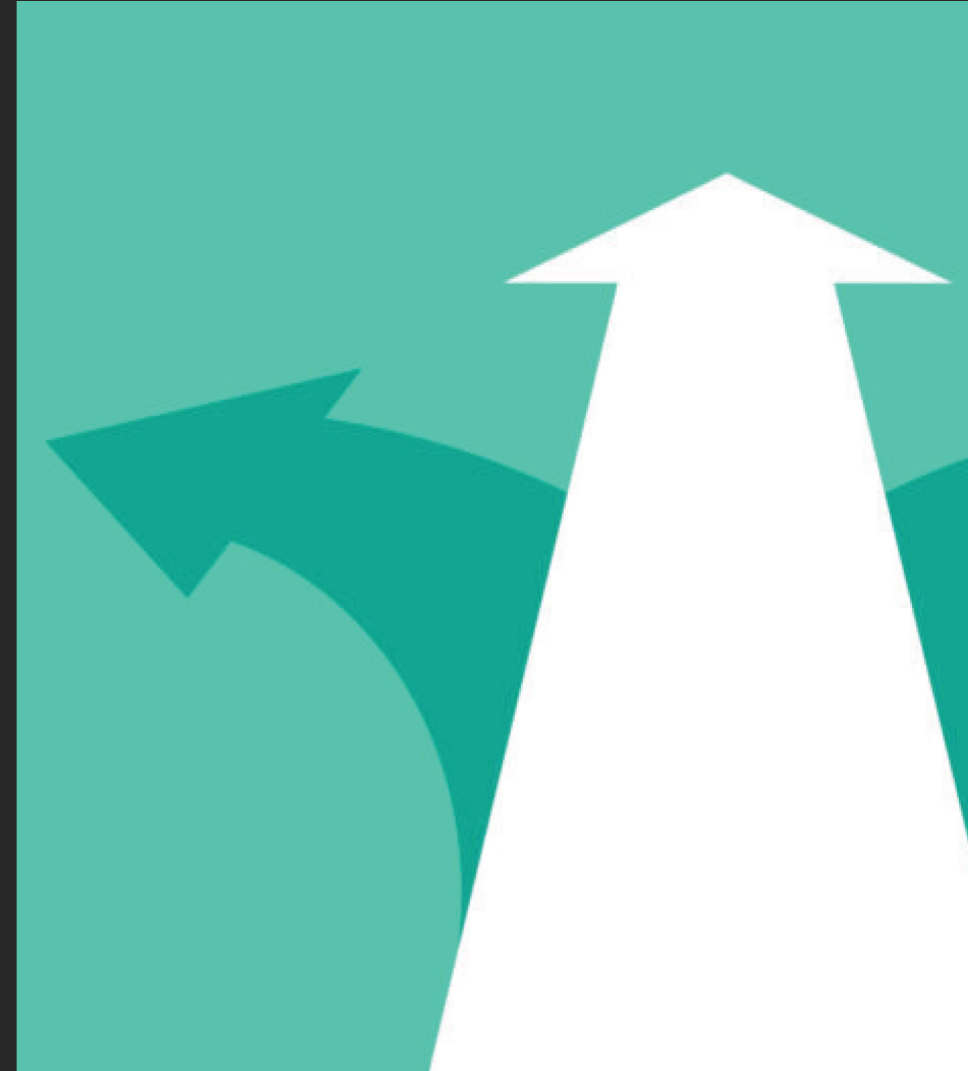Moments of nucleon transverse quark spin densities, arXiv:2202.09871

Academic career path

What you're probably thinking of:

1. PhD → 2. Two or three postdocs → 3. Tenure-track faculty position → 4. Tenure

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- National facilities and labs
- Research centers
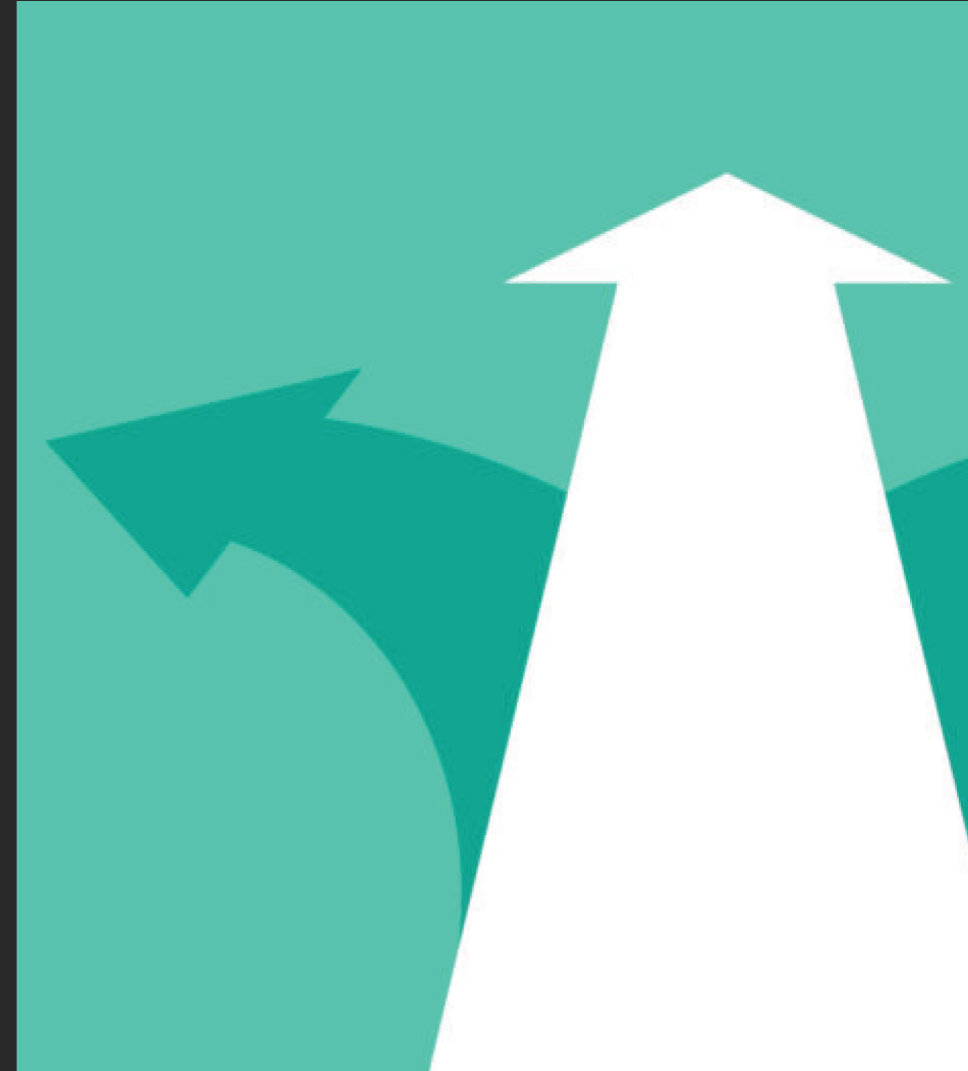- Computing centers

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    Staff scientist, Research associate, Research scientist, ...

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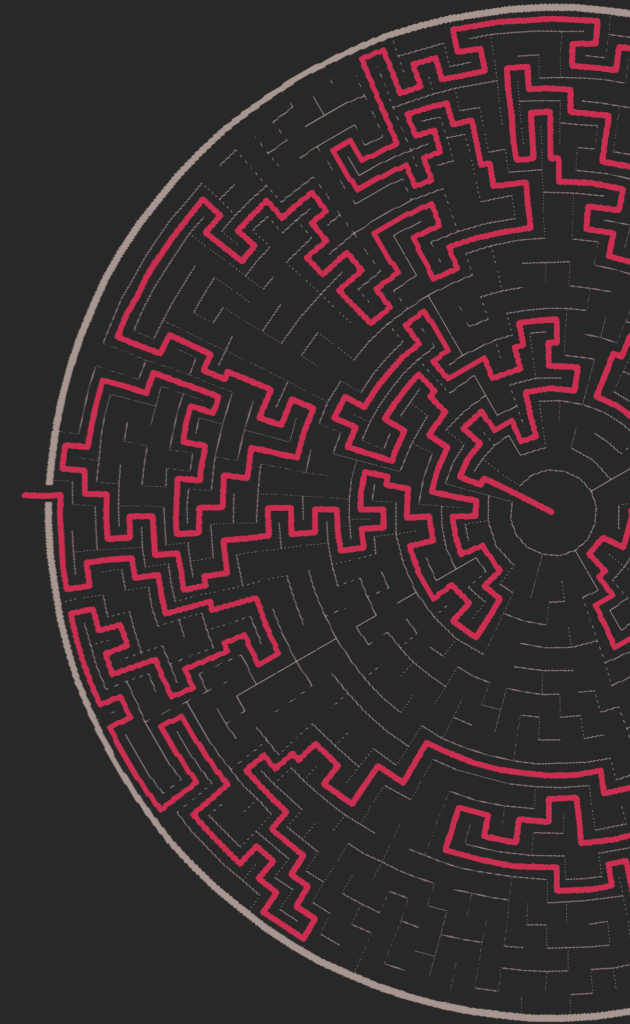
Some common features

- Focus on research over teaching
- Supervision of graduate students (depends on the country and institution's setup)
- Occasionally some expectations on attracting competitive funding

Funding opportunities

National funding opportunities

- Each EU country has its own national funding bodies/agencies

- Too many to list here

- Some relevant examples: DFG (DE), INFN (IT), ANR (FR), etc.

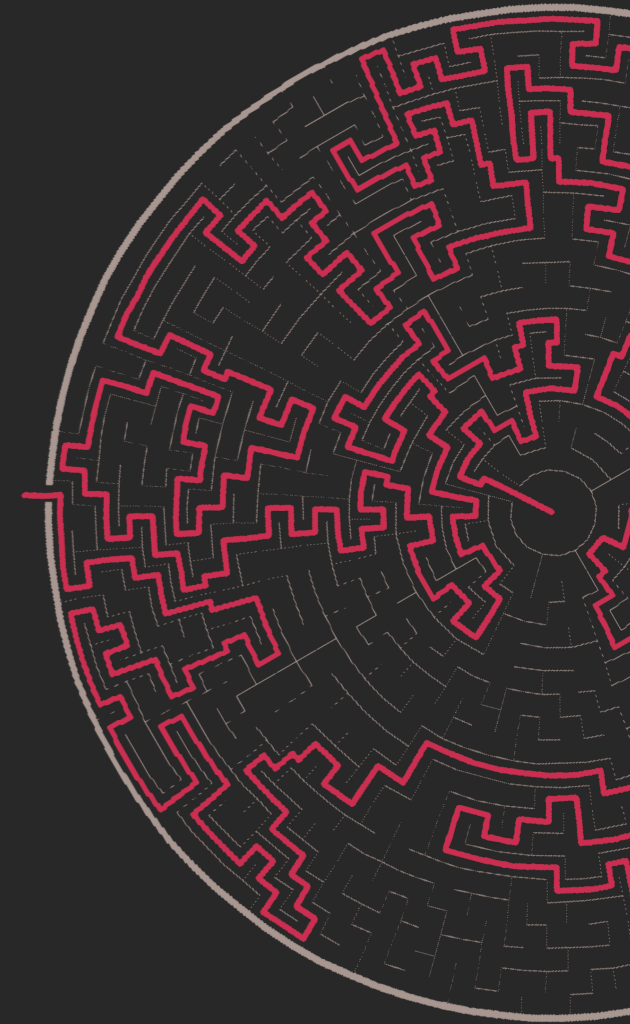- Expect grants at various levels (postdoc, junior professor, and so on)

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- Many EU calls don't target research (e.g. Coordination actions)
- Or, when they do, they sometimes need to relate to a "mission" (health, climate, etc.)

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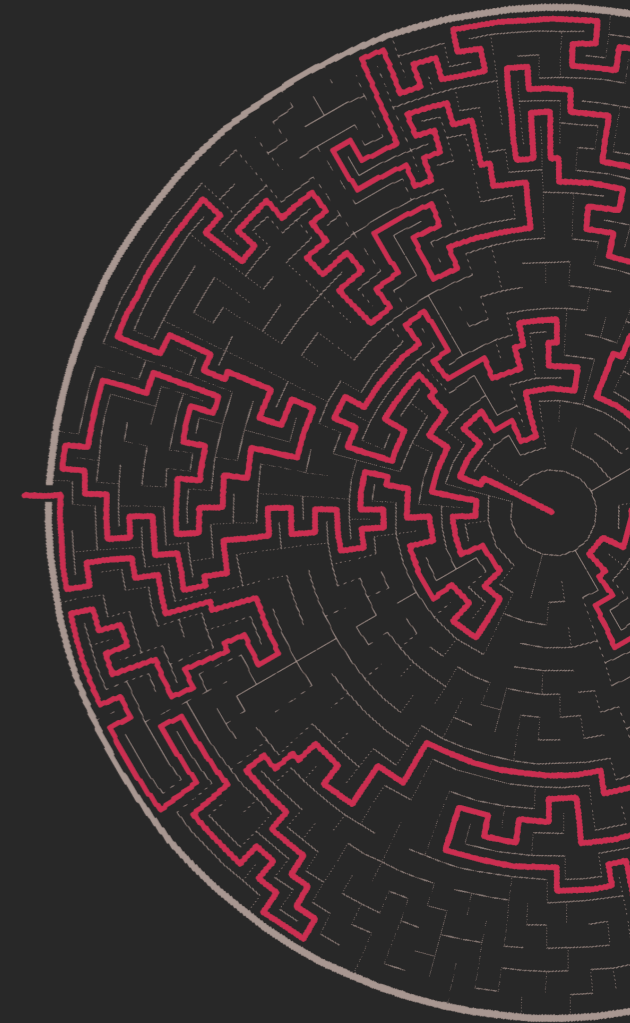
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EU funding opportunities most relevant *to you*

- Via *European Research Council* (**ERC**)
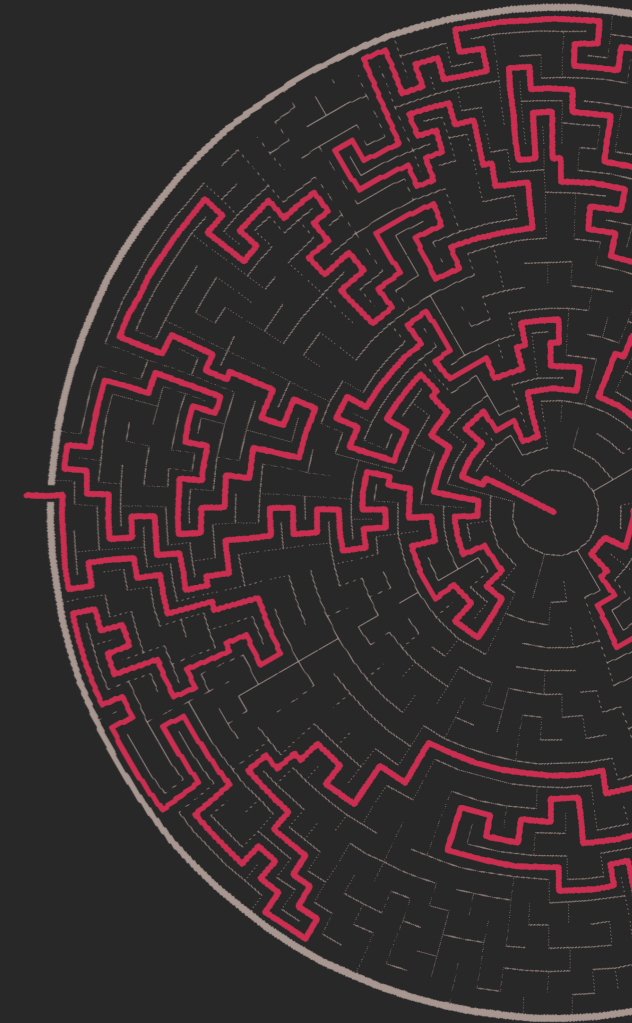- Via *Marie Skłodowska-Curie Actions* (**MSCA**)

Funding opportunities in Europe

European Research Council

Probably the most prestigious research grants awarded centrally in the EU

- Three levels (*"Starting"*, *"Consolidator"*, *"Advanced"*) depending on years from PhD
- Open to any area and to anyone (not just EU). Need to specify European institution
- €1.5 Mi for five years (StG) — funds your salary plus team
- Many institutions would be very keen to agree to host you if successful
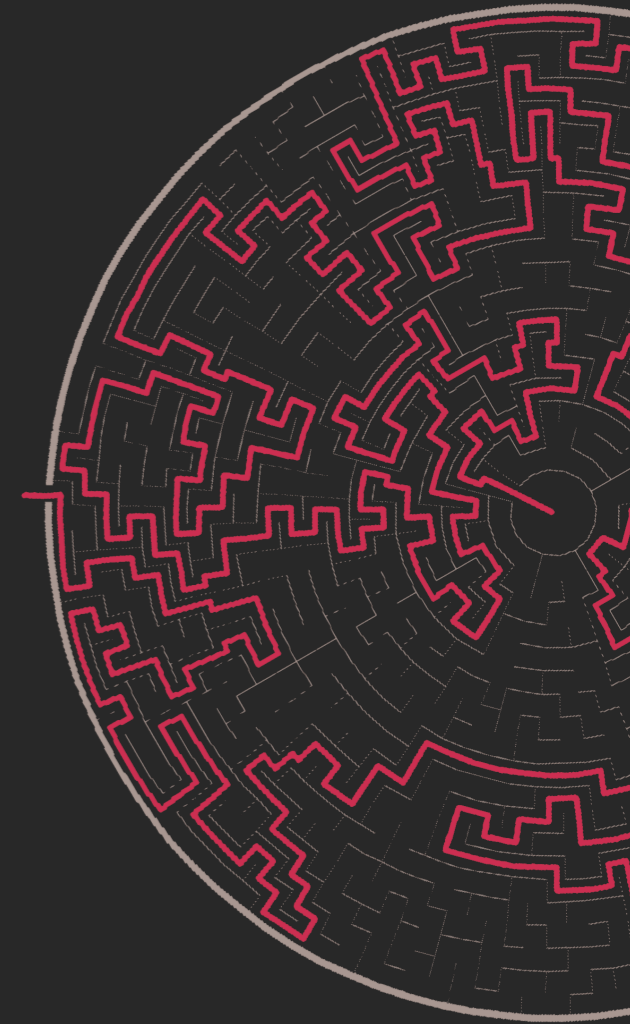
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When to consider applying (for a [Starting Grant](#))

- Need to have a good CV **and** a good idea
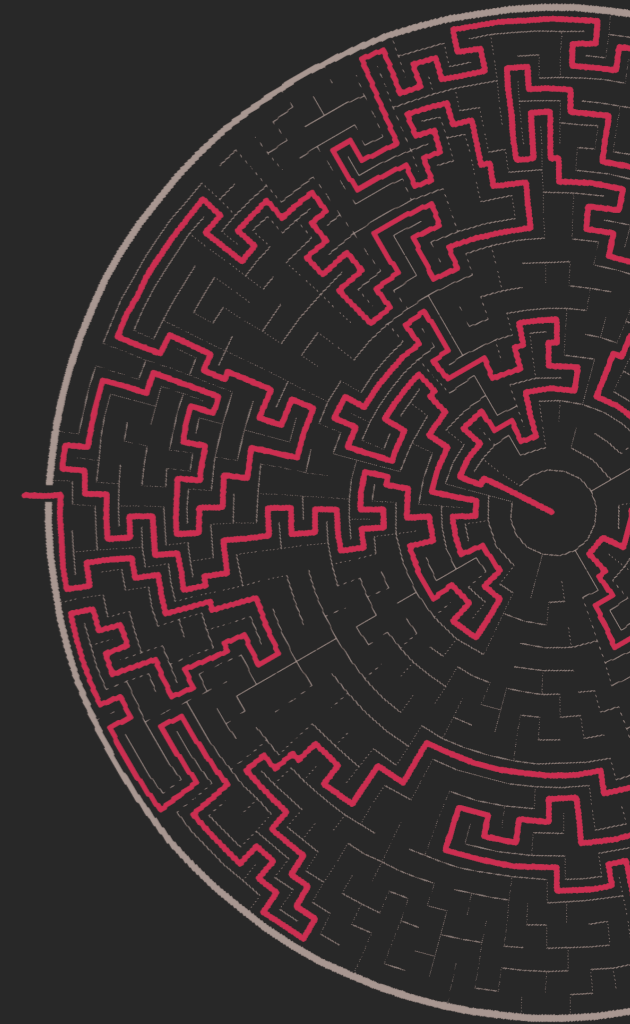- Meaning probably after some time as a postdoc (~3 years after PhD)

Funding opportunities in Europe

Marie Skłodowska-Curie Actions

These focus on *"mobility"*

- As in, move to a (new for you) EU country
- See *Individual Fellowships* (IF) (not Innovative Training Networks (ITNs))
- Funding is aimed at postdoc-level researchers
- 1-2 years. Generous salary plus funding for travel
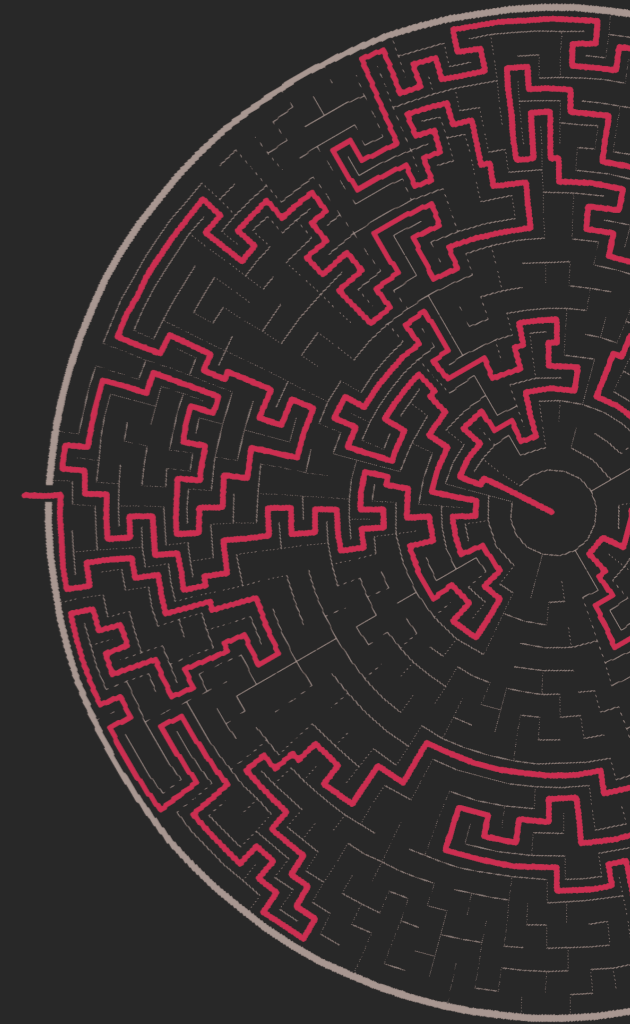
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Consider also *ERA fellowships*

- Basically same as IFs but in case the beneficiary is in a so called *"Widening Country"*
- Larger funding-to-applications ratio $\Rightarrow$ improved chances for funding
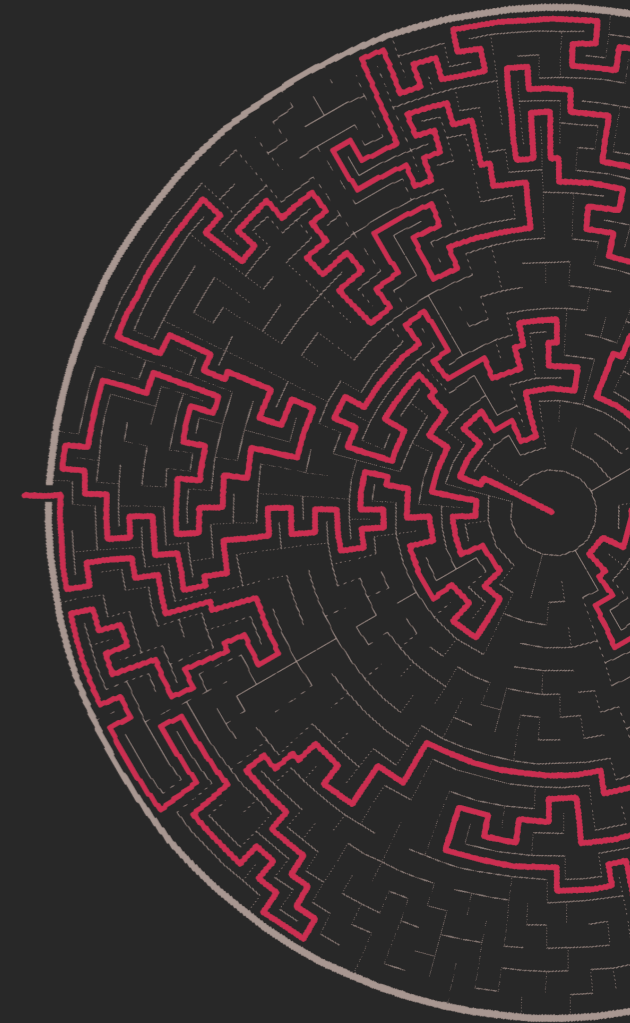
Some general pointers

In arbitrary order:

- Try to use any opportunity for presenting your work you get
  - Experience in public speaking
  - Clarifies your objectives and results
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Questions ● *suggestions* ● *feedback?*