POSTDOCTORAL RESEARCHER

THE JOURNEY

From Greece to Poland, China and back again

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Architectural illustration

A journey in five chapters

01	**(SELF-)INTRODUCTION**	Where my interest in physics began
02	**THE FIRST STEPS OF THE JOURNEY**	Leaving home, Warsaw and Beijing
03	**THE CURRENT STATUS**	Poznań, a new chapter
04	**POSITIVE EVOLUTION**	Staying active and growing as a physicist
05	**CONCLUSIONS**	The good and the difficult sides

The path began in Greece

- Born and raised in Greece
- Heritage: natural sciences, philosophy, ...
- The path was already there: **physics**





Best way to combine vacations with physics? The Corfu conference!

physics.ntua.gr/corfu2026/sm.html

YOU ARE ALL WELCOME!

The first academic steps

01

UNIVERSITY OF PATRAS

Bachelor’s degree in Physics

The journey toward theoretical physics began here.

02

NTUA · ATHENS

PhD in theoretical high-energy physics

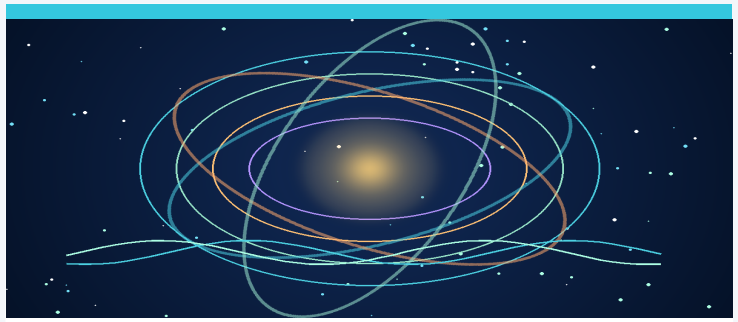
The BSc-to-PhD years were a journey of their own — but that is another story.

Four lessons that stayed with me

- **Love for physics**
- **Hard work**
- **Commitment**
- **Communication**

What my research is about

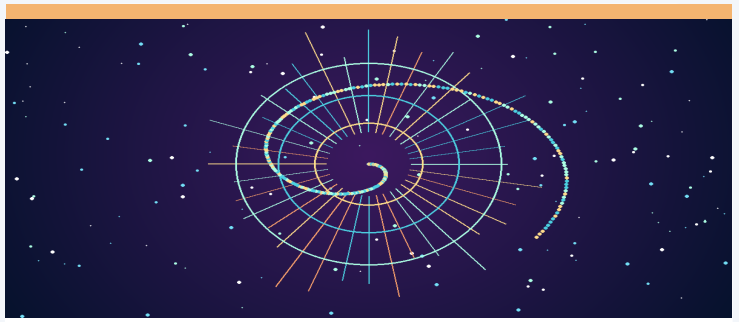
Today my work lies at the interface of particle physics and cosmology.



PARTICLE PHYSICS

Higgs physics & symmetry breaking

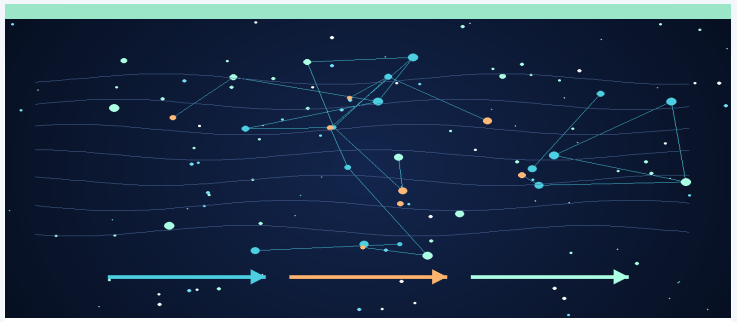
How fundamental symmetries break and what they reveal about physics beyond the Standard Model.



EARLY UNIVERSE

Dark matter & inflationary cosmology

How the early Universe could produce dark-matter candidates through gravitational and cosmological mechanisms.



DARK UNIVERSE

Dark energy & cosmic acceleration

How theoretical models of dark energy can be confronted with observations of the expanding Universe.

One common thread: connecting fundamental theory with the Universe we observe.

Warsaw: the journey really begins



WARSAW · POLAND

After finishing my PhD, I accepted an offer from the University of Warsaw. It was not easy.

CERTAIN OBSTACLES

- Leaving family
- New country / culture
- New group, new people

GREAT MOMENTS TOO

- Developing your skills
- Working on interesting projects
- People start noticing your work
- Finding your place in the physics community
- Seeing the world (funding & supervisors permitting)

The motto: A new country. A new group. New possibilities.

What changes—and what remains constant

During a postdoc, many things can change sign. But as physicists we look for *fundamental constants*: **The lessons**

THE FUNDAMENTAL CONSTANTS

1. **Love for physics**
2. **Hard work**
3. **Commitment**
4. **Communication**

THE PERSONAL MINDSET

i. **Open-mindedness**

ii. **Self-confidence**

iii. **Socializing**

With these principles, difficult times become productive times — and friendships become collaborations.

Beijing: a complete change of environment



IHEP · BEIJING

A new postdoc and a complete change of group and culture.

Same story, but better

Previous experience makes the transition smoother.

New things to learn

New ideas, research directions, friends and collaborators.

The mindset once again

Openness, hard work, commitment and communication.

Is the experience getting better? YES! Seniority means more freedom…

Poznań: a new chapter, more freedom

AMU · POZNAŃ

Faculty of Physics and Astronomy

Adam Mickiewicz University

Another change of research group

The journey continues in a new environment.

The same mindset—stronger with experience

Once again: new things to learn and new ideas to develop.

New people, new collaborations

Making friends and developing research connections.



Is it getting better? YES!

Seniority means more freedom…

Illustrative architectural image

Constants (Λ) and accelerated expansion ($g_{\mu\nu}$) : The **lessons** plus the **rate of development**

The constants are not enough: we also need to keep evolving.

CONSTANTS

Love for physics · Hard work · Commitment · Communication

PERSONAL STRATEGY

Work with the same passion

Love physics with the same passion

Stay active locally

Journal Club

Stay active globally

International conferences

Continuing to develop is just as important—and just as difficult.

A postdoctoral career: tough and beautiful

Postdoctoral life can be difficult and rewarding at the same time.

PROS

- New ideas
- New people
- Self-development

CONS

- Short stays and uncertainty
- Anxiety
- Life outside your comfort zone

My postdoc "function" $F(X_i)$:

$$x_i = \{\textit{new ideas, new people, self-developemnt,}\dots\}$$
$$y_i = \{\textit{short stays, anxiaty, outside confrort zone,}\dots\}$$

$$F(x_i) > F(y_i)$$

Overall, I think a postdoctoral career is an amazing experience—and I hope you can experience it too.

THANK YOU!

Questions and conversations are welcome.

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