

American
Physical
Society

One Physics Ellipse
College Park, MD 20740-3844
www.aps.org

SESSION S7: NON-TRADITIONAL CAREERS FOR PHYSICISTS

Invited Speakers Session S7:

Wednesday, March 12, 2008

APS Journals Editors

A road less traveled: An editorial career

<http://meetings.aps.org/Meeting/MAR08/Event/79480>

Manolis Antonoyiannakis

(1) Physical Review Letters

(2) Columbia University

Scientific communication: An alternative career in physics

<http://meetings.aps.org/Meeting/MAR08/Event/79481>

Daniel Ucko

Physical Review Letters

A road less traveled: An editorial career

Manolis Antonoyiannakis

(1) Physical Review Letters

(2) Columbia University

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Why **not** a “conventional” career:

During my graduate (MSc, PhD) studies, physics research **seemed** (gradually, but systematically and inexorably) a lot more mundane than I had imagined before actually embarking on it

Research physicists **seemed** less inspiring as role models

Job landscape **seemed** too rough and too competitive for my taste

I **dreamt** of learning much more about Life than I **felt** I would be able to do following the traditional path of a researcher's life

Idea of contract work (post-doc) with minimum job security, and associated compulsory relocation every 2 years, **felt** restrictive and unappealing



CRISIS!

+

Appeal of the "road less traveled"
(**wanting** to be different)



Search for a way out (consistent with my nature)

Exit strategy #1:
Secondary education in Greece

[Volunteering in Crete -
started an animal welfare association
called "ΖΩΟΦΙΛΗ ΔΡΑΣΗ"]

Exit strategy #2:
Scientific publishing in Crete University Press
(an alternative route to education)

Some turbulence, more soul searching

A great mentor comes along



Stefanos Trachanas

Physicist, textbook author, teacher, "activist"

Director of Crete University Press

Exit strategy #3:
Scientific publishing in APS –
editorial job in PRB (2003)...
...then in PRL (2007)

What's the main attraction?

Science publishing in a world-leading organization
+
non-profit
+
New York City



Editorial job in APS

Main role:

Take critical decisions re: scientific papers,
under constraints:

(1) Time

(2) Lack of full expertise in some areas

(3) Conflicting recommendations from
reviewers

It is the constraints that make the “problem”
interesting!

Editorial job in APS

World leading professional institution

Academic environment

Job security and stability

Opportunities to learn and grow within the job:

- learn more physics
- writing
- design own projects and make them happen

I love to travel!! (3 months/year in my case)

modest salary

Essential traits of an editor

Scientific background in at least one field
(typically: PhD + post-doc experience)

Willingness to learn (about physics + people)

Integrity

Critical thinking

Flexible thinker vs. independent thinker

Communication skills

Sense of humor

Common sense!

Essential traits of an editor

The whole of science is nothing more than a refinement of everyday thinking.

(Albert Einstein)

APS editors' 21 countries of origin



PRL editors - a group of very different people who (try to) work seamlessly



The bigger picture

It is just as important to **make knowledge live and to keep it alive** as to solve specific problems.

(Albert Einstein, 1954)

“To Advance and Diffuse the Knowledge of Physics”

(APS mission statement)

My advice to a young scientist

Trust your instinct/inner voice about where
you want to be and what you want to do

Believe in yourself - you can do a lot more
than you may think you are capable of

Embrace change and learn from it

“The Road Not Taken”

“I shall be telling this with a sigh
Somewhere ages and ages hence:
Two roads diverged in a wood, and I—
I took the one less traveled by,
And that has made all the difference.”

Robert Frost (1874–1963)

Scientific communication: An alternative career in physics

Daniel Ucko, Physical Review Letters

Scientific publishing as a career

- A way to be doing physics in a more general way.
- Part of the community, and an essential part of such.
- Advancement of science.

Why work in scientific publishing?

- Why peer review?
 - Puts results to test
 - Improves manuscripts
 - Adds value and trust in results
- Editorial work is physics work.
- Peer reviewed publication makes progress in science.

Who am I?

- Assistant Editor, Physical Review Letters

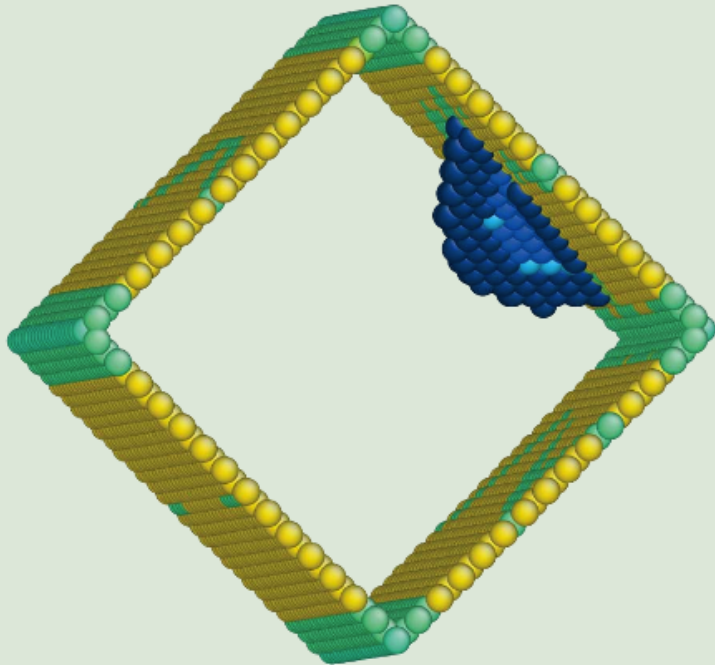
and before that

- Post-doc at University of Birmingham, UK
- PhD and MSci from University College London,
University of London

PHYSICAL REVIEW LETTERS

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American Physical Society

Established in 1893.

Physical Review Letters
established 1958.

Weekly journal, publishing
physics results of great
importance and broad interest.

Located in Ridge, NY (on Long
Island).

APS journals (prola.aps.org)

Physical Review A :	atomic, molecular, and optical physics
Physical Review B :	condensed matter and materials physics
Physical Review C :	nuclear physics
Physical Review D :	particles, fields, gravitation, and cosmology
Physical Review E :	statistical, non-linear, and soft-matter physics
Physical Review ST-AB *:	special topics: accelerators & beams
Physical Review ST-PER *:	special topics: physics education research
Physical Review Letters :	all topics in physics
Reviews of Modern Physics:	all topics in physics
Bulletin of the APS:	abstracts of papers for meetings
APS news:	news of the APS
Focus*:	publications of special interest

*online only

What do / do?

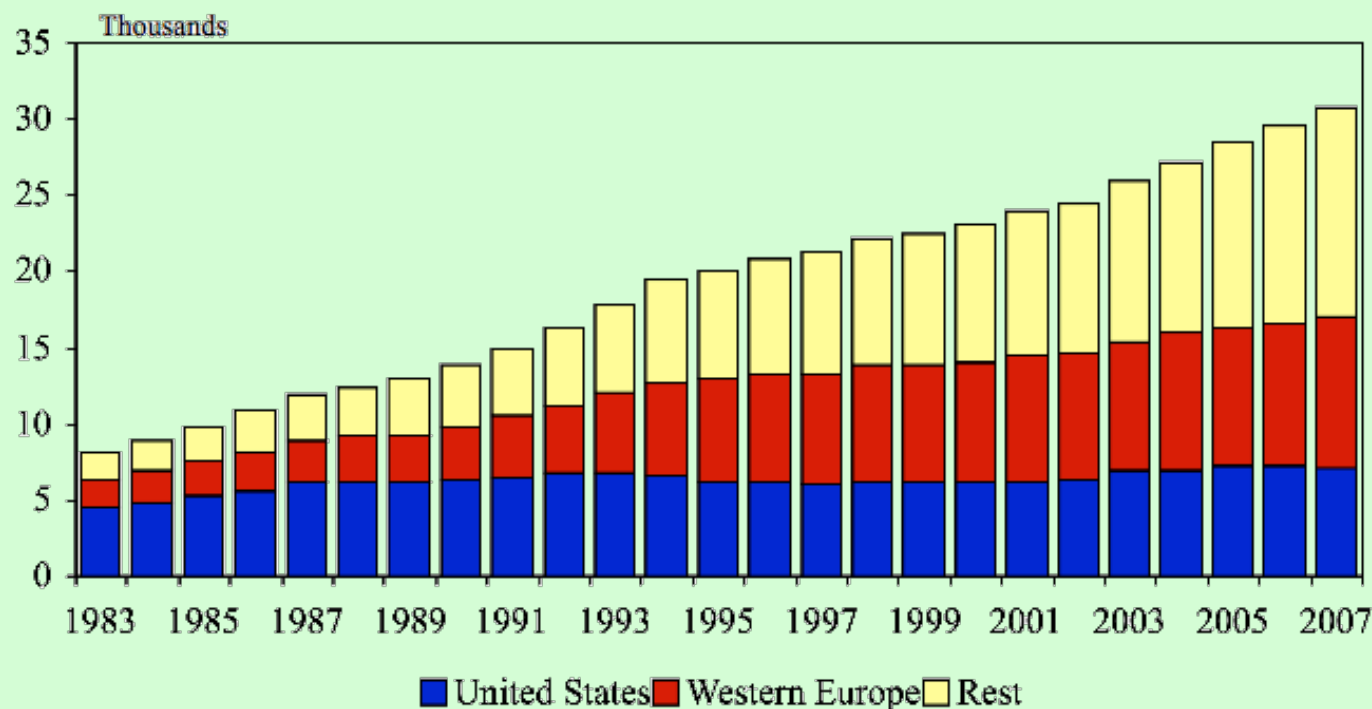
- Select referees
- Read correspondence
- Make decisions

but also

- ✓ Find papers to Suggest or highlight
- ✓ Outreach
- ✓ Participation

Opportunities at Physical Review?

Physical Review and Physical Review Letters Submissions
1983 - 2007



Skills needed for editors

- Scientific grounding
- Experience as author or referee
- Decision making
- Extract useful advice and information
- *Helping authors get published.*

Opportunities at Physical Review?

- www.aps.org
- prl.aps.org, prb.aps.org etc.
- physicstoday.org