## FROM THE EDITOR

## Brexit, immigration, and me

Charles Day

he day after the UK voted in favor of leaving the European Union, PHYSICS TODAY's online editor, Andrew Grant, wrote a news story on the reaction of the UK's physics community to Brexit, as the secession is known, and on its possible impact on the country's scientific enterprise.

Most scientists in the UK oppose Brexit—with good reason. As a member of the EU, the UK contributes to a union-wide pot of research funding. Its scientists, however, are notably successful in competing for that funding. Andrew reported that in 2007–13, scientists in the UK received a net €3.4 billion (\$3.8 billion) from the EU.

I wrote "scientists in the UK," rather than, say, "British scientists," deliberately. When Andrew sought the opinion of a physicist based in Northern Ireland, he reached Mauro Paternostro, an Italian at the Centre for Theoretical Atomic, Molecular and Optical Physics at Queen's University Belfast. The other full professor in the center, Hugo van der Hart, is Dutch.

The freedom of the EU's citizens to work or study in any EU country was established in the union's founding charter, the Treaty of Rome, which went into effect on 1 January 1958. However, it took longer to make that freedom a practical reality. In 1984–88, when I was a graduate student at Cambridge University's Institute of Astronomy, there were students from other countries—Australia, Brazil, Norway, Finland, if I remember correctly—but none from the EU. (Finland joined the EU in 1995.) Now 9 of the department's 44 graduate students are from the EU (minus the UK); 12 are from non-EU countries.

I left my native Britain and the EU in 1988. That year, I started a postdoc at Japan's Institute of Space and Astronauti-

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cal Science near Tokyo. When the postdoc was over, I moved to the US to work at NASA's Goddard Space Flight Center in Greenbelt, Maryland. I have remained in the US ever since.

So I can't tell you from personal experience what it's like to exercise my right as an EU citizen to work in any of the union's 28 countries. But I can tell you what dealing with immigration bureaucra-



cies is like. When I lived in Japan, I was obliged to carry with me an alien registration card. Besides my photograph and biographical details, the card also displayed my left thumbprint.

On 28 November 1990 I set foot in the US for the first time to start my NASA job. Having inspected my visa, the surly immigration officer demanded, unnecessarily, to see my offer of employment. Luckily, I had it to hand. Under US immigration rules, I could renew my H-1B visa only outside the US. Fortunately, I did so in Tokyo, which I visited periodically for work and whose US embassy is large, well staffed, and not overwhelmed with visa renewal requests. Some of my colleagues were less fortunate. They had to remain abroad for months while overworked or inefficient immigration officials labored over their applications.

Applying for permanent residence and then US citizenship was another Kafkaesque ordeal. I had to have my fingerprints taken twice because they had "expired." When I became a US citizen in 2000, it was because the US is now my home and because I treasure the Bill of Rights. But one other motivating factor was to avoid having to deal with the Immigration and Naturalization Service ever again.

Most readers of Physics Today are US citizens who live in the US. The consequences of Brexit might seem remote, but the ugly anti-immigration sentiment that fueled the Leave campaign has its counterpart in the US. And it's not necessarily confined to factory workers who rail against globalization. During the recession of the early 1990s, some postdocs in the US formed the Young Scientists Network (YSN) to campaign against the lack of jobs in academia and industry. Among YSN's targets: foreign graduate students and postdocs. The movement fizzled as the economy recovered, but I worry that a similarly nativist pressure group could be in the offing.

As I write this editorial, it's too early to know whether UK citizens will continue to work freely in whichever EU country they choose and whether EU citizens will continue to work freely in the UK. EU negotiators will likely insist that the UK can have free access to its markets for goods and services only if EU citizens have free access to the UK's market for jobs. If that proves to be what the EU negotiators offer, I hope the UK accepts the deal. It'll be worth it.