

Editorial

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The theoretical physicist Eugene Paul Wigner was one of a group of amazingly gifted individuals from Hungary who made decisive and epoch-making contributions to 20th century science. Others in this group were Theodore von Kármán (*Resonance*, Vol.10, No.8, 2005), Leo Szilard, John von Neumann (*Resonance*, Vol.1, No.5, 1996) and Edward Teller. (And how can one forget Dennis Gabor, Michael Polanyi, Arthur Koestler, Alexander Korda, Paul Erdős, Albert Szent-Györgi, ..., also all from this amazing country of no more than ten million people, each a towering figure in his chosen field?). All five of them came from well-to-do Jewish families living close to one another in Budapest, completed their training in Germany, and then migrated to the US to escape from the menace of anti-Semitism. Echoing Winston Churchill one is tempted to say – never before have so few from such a small country done so much affecting so many!

In this issue of *Resonance* we honour Wigner's life and work. After the pioneering steps taken by Henri Poincaré and Albert Einstein in emphasizing the importance of symmetry and invariance in fundamental physical theory, it was Hermann Weyl and Wigner who brought out the enormous importance of group representation theory for quantum mechanics. In this effort, the magnitude of Wigner's achievement is in a sense greater; his methods in time found application in molecular, atomic, nuclear and elementary particle physics.

In addition to an account of Wigner's life, work, personality and philosophical views, we have an article on a recent mathematical development inspired by his work on random matrices; and a 'Snippets in Physics' instalment on the Wigner function in quantum mechanics. In the Classics Section, we present the text of a 1950 talk by Wigner on 'The Limits of Science' – a thoughtful piece on the way science might develop in future, as seen half a century ago.



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'Someone once said that philosophy is the misuse of a terminology which was invented just for this purpose.'

'It has been said that the only occupations which bring true joy and satisfaction are those of poets, artists, and scientists, and, of these, the scientists are apparently the happiest.'

E P Wigner

