

## FKE-SEMINAR

# Tunnelling Dynamics

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EPIC, Paris

Date and Time: **January 8<sup>th</sup>, 2016, 10:00 s.t.**

Location: **Seminar Room Floragasse 7, 1040 Wien**

Host: E. Gornik

### **Abstract**

Quantum Tunnelling has been studied more than 60 years. The calculation of steady-state tunnelling probabilities based on the solution of the time-independent Schrödinger equation probabilities is now a standard problem in introductory quantum mechanics. However, this approach leaves a key question unanswered: how long does it take the particle to tunnel from one side to the other? The answer to this question has important practical significance. If an electron is to traverse a finite region of space, such as a section of conducting wire, can it do so even faster if we put a tunnelling structure in its path?

### **Biographical sketch**

Tom Pearsall has a distinguished career in photonic science and technology, where he has made major contributions to fibre-optic telecommunications and silicon photonics.

A graduate of Cornell University, he worked in research at Bell Labs for over a decade. In 1990, Pearsall was named Boeing-Johnson Chair and Professor at the University of Washington. From 1998 to 2002, he directed research on planar photonic crystals at Corning in Fontainebleau, France.

In 2003, Pearsall founded EPIC, The European Photonics Industry Consortium. EPIC proposed and developed the European Technology Platform **Photonics**<sup>21</sup>. EPIC has initiated the LIFT project --Leadership in Fibre-Laser Technology. LIFT is a 17 million euro project federating over 20 major European laser companies and laboratories that has successfully moved fibre-laser capacities to a new level.

He is a Fellow of the American Physical Society and a Fellow of the IEEE.