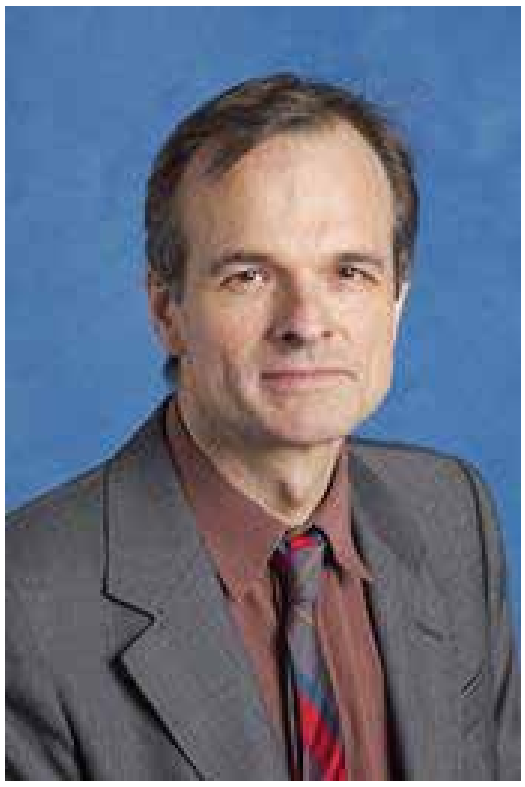
ICTP – Eurasian Centre for Advanced Research

COLLOQUIUM

Physics versus Hospital Superbugs



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The growth of the antibiotic-resistant superbug, methicillin-resistant Staphylococcus aureus (MRSA) is driving the development of new technologies to investigate antibiotics and their modes of action. We report silicon cantilever based studies of self-assembled monolayers of mucopeptides which model drug-sensitive and resistant bacterial walls. The underlying concepts needed to understand the measurements will simplify the design of cantilevers and coatings for biosensing and could even impact our understanding of drug action on bacteria themselves. Finally we describe how cantilever-based biosensing could be transformed from a research technique to a tool for a pharmacology and clinical diagnostics.

8 October 2015, Thursday

09 30 – 10 30

IZTECH Library Conference Hall