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Stuttgarter Physikalisches Kolloquium

Max-Planck-Institut für Festkörperforschung
Fachbereich Physik, Universität Stuttgart

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Hybrid

Login data will be announced by e-mail and on the colloquium webpage.

Dienstag, 6. Mai 2025	16.15 Uhr	Lecture Hall 2D5

Max-Planck-Institut für Festkörperforschung, Heisenbergstraße 1, 70569 Stuttgart-Büsnau

Research & research management: what I have learned from a R&D career combining the two

Supratik Guha
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Abstract

What makes science research and research management work in the most efficient manner? We see instances of this historically – often within pockets of scientific activity at different points in time and location where a certain ecosystem has managed to “come together”. Examples may be found in the evolution of quantum mechanics (Gottingen, Copenhagen etc.), computing and information (Bell Labs, IBM, PARC), and the internet (Si valley). Based upon my experiences in electronic materials research – where I have gone back and forth between bench research and research management, and across industrial r&d, national laboratory and academia – I will comment on what I have observed to be instructive in the art and science of practicing applied research, both strategically as well and tactically, particularly in solid state materials research and its employment for information technologies. I will offer my thoughts through experiences in three major research projects that I have had the honor of working in (as a scientist and as a research executive) over the years: materials for microelectronics, quantum information, and environmental sensing. I will also describe my thoughts on important changes in this “ecosystem” that have emerged and are relevant to the younger generation of scientists: the importance of startups, the role of IP, multidisciplinarity, the addiction to hype and publication obsession, and the blurring boundary – at least in some fields – between basic science and applied technology.