Propositions

accompanying the dissertation

Coupled charge, spin and heat transport in metal-insulator hybrid systems

1. Bringing heat transport into the playground of spintronics has greatly enriched this field with many new physical phenomena established and yet to be discovered.
2. The spin Seebeck effect is extensively applied as a powerful and easy approach to generate spin currents in magnetic materials. Its mechanism however, is not yet fully unveiled and still demands further studies.
3. A responsible scientist should always be willing to rethink or even revise what has been established before, even it was claimed by him- or herself.
4. A physicist should feel happy if all the experimental observations can be comprehended. A physicist should feel even happier if they cannot be understood yet, as this can be a strong indication of a novel physical effect.
5. Though many published papers are logically correct by all appearances, the conclusions may deviate far from reality.
6. The talent of a physicist lies not in to complicate a problem, but to simplify it.
7. Punishment is not the best resolution to a mistake in the lab; conveying the lessons learned to others is.
8. Happiness is often a consequence of less desire.
9. "How quick are we to learn, that is, to imitate what others have done or thought before. And how slow to understand, that is, to see the deeper connections. Slowest of all, however, are we in inventing new connections or even applying old ideas in a new field." - *Frits Zernike*

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