Spin current induced phenomena in metallic nano-structures

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Abstract: The basic science for electronic devices aiming at manipulating the spin degree of freedom is spintronics, which provides a possible means to realize advantageous functionalities for spin based recording and information processing. For such functions, the usage of spin-current, a flow of spin angular momentum, is indispensable. Thus establishing techniques for efficient generation and manipulation of spin-currents is a key for further advancement of spintronic devices. In this talk our recent research progresses will be presented in terms of the spin-current induced phenomena in metallic nano-structures¹⁻⁴.

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