

# **Spintronics: A New Spin for the World of Electronics**

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Electronic applications are based on the properties of electrons in solid bodies. While currently employed devices operate with the positive or negative charge of electrons, the spin of electrons has been neglected so far. The use of this purely quantum mechanical degree of freedom might be the next development of modern electronics: spintronics. What are the basic principles of spintronics, what are the advantages compared to conventional electronics? Which progress has already been made in the field, which problems are ahead? One focus of the talk will be the development of suited new materials for spintronics.