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等。总之,凡涉及对个人学术表现的评价时,在定性的描述中可引入定量的指标加以佐证;在使用定量的评价指标时可引入引用者的定性的描述加以补充,综合考虑各种因素之后再做结论。最后我要着重指出:学术评价是一个复杂的科学和社会问题,没有最好的答案,只有更好的答案,学术评价工作要永远处在不断的改进之中。

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ASSESSING ACADEMIC ASSESSMENT

Zhang Chunting

(*Institute of Life Science and Biotechnology, Tianjin University, Tianjin* 300072)

Abstract Various academic assessing indicators, including those based on scientific output, citations, citation network, h-index and Internet, are briefly presented. The relationship between the peer-review and assessments based on various academic assessing indicators is discussed finally.

Key words publication number, citations per publication, weighted citations, crown indicator, eigenfactor and SJR indicator, h-index, peer-review

·资料·信息·

我国研究人员发现铁磁石墨烯体系CT(电荷共轭-时间反演)不变的量子自旋霍尔效应

最近,中国科学院物理研究所孙庆丰和谢心澄研究员在铁磁石墨烯体系中预言了一种新类型的拓扑绝缘体和量子自旋霍尔效应(*PRL*,104,066805(2010))。与由自旋轨道耦合所引起的拓扑绝缘体不同,这类新的拓扑绝缘体与自旋轨道耦合无关,体系也不具有时间反演不变性,但具有CT不变性(C为电子-空穴电荷共轭变换,T为时间反演变换)。再者,处在平衡时,原来拓扑绝缘体的边界态只携带持续自旋流,而现在的边界态同时携带持续自旋流和持续电流。加电压时,现在的体系可以同时观察到量子自旋霍尔效应和量子霍尔效应。所以,这是一种新类型的拓扑绝缘体。

由于这类体系既有量子自旋霍尔效应也有量子霍尔效应,导致纵向电阻R14,23和霍尔电阻R14,26都呈现平台结构。另外,他们也研究了这类体系的自旋霍尔阻抗。结果显示自旋霍尔阻抗RS也有量子化平台。特别是,这种自旋霍尔阻抗的量子化平台有非常强的抗无序能力,即使无序强度W增加到带宽量级,自旋霍尔阻抗的平台还能保持。

以上工作得到了国家自然科学基金和科技部经费的资助。

(中国科学院物理研究所 供稿)

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