

Stuttgarter Physikalisches Kolloquium

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

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SONDERKOLLOQUIUM

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Universität Stuttgart, Pfaffenwaldring 57, 70569 Stuttgart-Vaihingen

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Is there such a thing as the Snellius-Descartes law of refraction?

Dominique Raynaud
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Abstract

If we examine the status of the law of refraction in the texts of Ibn Sahl, Harriot, Snel and Descartes, we find that none of these authors knew the law of refraction as it is taught today. The differences concern the nature of the relationship linking the angle of incidence and the angle of refraction, the role conferred to this relationship in optical texts, and even its recognition as a physical law. In these circumstances, the question of who discovered the law of refraction – Descartes, Snel, Harriot or Ibn Sahl? – makes little sense. I argue that such questions are plagued by ethno-nationalist agendas that have nothing to do with objective historical knowledge. Insensitive to the siren song, we need to start by clarifying our knowledge of this relationship. This is a fundamental prerequisite for asking more general questions about the law of refraction in optics.