

Editorial

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From the Publisher

The most remarkable thing about the foundations of twenty first century physics is that they are anything but cast in stone. The stable edifice of reliable physical law, the basis for all our science and technology, is, as readers of Foundations of Physics well know, actually built upon fundamental notions that are in a state of flux—sometimes evolving gradually, but occasionally undergoing radical modification. Likewise, the human element, the role of journal helmsman, is itself subject to change. Therefore it is “with one crying eye and one laughing eye”, as the German saying has it, that we announce both the retirement of Gerard 't Hooft from his position as editor-in-chief of the Foundations as well as the good news that Carlo Rovelli will take over at the helm, as of this issue. We, at Springer, express our heartfelt thanks to Gerard for the wonderful work he has done for the journal over the past nine years, extending at the same time a warm welcome to Carlo, whom we wish every success in his new role.

Angela Lahee

From the Retiring Editor-in-Chief

It has been my pleasure and privilege to serve as Editor-in-Chief of Foundations of Physics for almost a decade. During this time—and of course long before—the fundamental mysteries of physics have received attention from a wide variety of scholars

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in many branches of learning, and at all levels of sophistication. Our authors share the concern that many of the standard approaches by which we address fundamental questions may be too direct, too strongly rooted in tradition, or with too little originality and imagination. However, the need to be original and imaginative should never be an excuse for inaccurate reasoning or ill-informed speculation. Thus I have always been very strict in selecting what appear to be the most inspiring and useful pieces of work. I carried out this task with close scrutiny and great devotion, while profiting enormously from the professional assistance of our managing editor, Fedde Benedictus. But the time has now come for me to step down as Editor-in-Chief of Foundations of Physics and to join the ranks of its regular editorial board.

My successor, Carlo Rovelli, is an expert in quantum gravity and also has a wide range of other interests in theoretical physics. I know him well and greatly respect him, personally and for his achievements. Thus I was delighted to learn that he accepted our invitation to take over. Fedde Benedictus will stay on to assist Carlo. I am sure that, with their combined expertise, they will do an excellent job of maintaining our journal as the primary platform for innovative ideas in the foundations of physics.

Gerard 't Hooft

From the New Editor-in-Chief

It is not an easy step to accept a position just vacated by Gerard 't Hooft. But I look forward to the challenge and hope to be capable of continuing his remarkable job, which has given Foundations of Physics such authority and influence.

I have long defended the idea that progress in fundamental physics does not depend solely on mathematics and observations. It requires also an insightful reflection on the basis of the conceptual structure we use to describe the world. I believe this is particularly true today, with many central unsolved problems demanding that we once again question the very grammar of our scientific image of the physical world. But this is also an era in which theoretical physics has sometimes jumped ahead fast without pausing to reflect on the conceptual bases of the theories concerned.

My aim is to make Foundations of Physics a privileged forum for discussing these foundational issues, equally open to physicists, philosophers and mathematicians.

Carlo Rovelli