Physics

TS
SR

Letter from the Editor

Physics, as a discipline, attempts to answer the most fundamental questions we have about the nature of the world we live in. It stems from the profound and innate desire to pursue knowledge, order, and reason that has always been an intrinsic part of what it means to be human. Curiosity is what drives us as scientists. The Physics papers presented here are varied in theme, content and scope. Some are practical, putting forwards plausible solutions to very real problems we face today and reflecting the research interests of Trinity students. Some are more mathematically based, attempting to write the laws that govern the universe on a piece of paper. Others are more imaginative, with the authors presenting new and fresh ideas and dreaming of what might be possible in the future. It is clear however, that what each piece has in common is tangible evidence for the underlying curiosity, which fuels our quest for reason.

Nature possesses beauty on every scale – be it the stunning complexity of our universe, the nuances and subtleties of the atom, or the elegant symmetries of pure mathematics. All the authors presented here have attempted to provide us with a glimpse of this beauty on some level. The standard of submissions was exceptionally high this year and I'd like to take this opportunity to congratulate the successful candidates and thank everyone else who submitted, as well as all the academics involved in the review process. In particular, I'd like to thank Prof. Werner Blau for his advice, guidance and constant willingness to help.

People often question the relevance of basic research, and doubt the need to pump money into research facilities such as CERN's Large Hadron Collider or NASA's space exploration missions. There is no immediate or obvious benefit to the economy. While it's true that conducting primary research may lead to many beneficial spin off inventions (the lightbulb, x-ray machine, and the computer to name but a few), this is never our motivation. We do not ask questions about our universe with a specific result in mind. We ask questions simply because we are curious. We ask questions simply because we want to understand more about the world around us, and that in my

opinion, is the most noble of causes. In light of this, I cannot overstate how proud I am to be involved in a publication such as the Trinity Student Scientific Review, which provides student scientists with a platform to engage with the research-driven world of academia, possibly for the first time. I relished every second of working with my fellow committee members and academics.

I invite you now to read the successful Physics submissions. I'm sure you'll find them enriching, intriguing and thought provoking.

Dylan Scully
Physics Editor
Trinity Student Scientific Review 2015