

For distribution to the faculty.

Noyce Visiting Professor Report 2002-2003

Members of the Noyce Visiting Professor Committee were Arnold Adelberg, Mathematics (Director); Charles Duke, Physics; Leslie Lyons, Chemistry; Sam Rebelsky, Computer Science.

We were fortunate this year to have had two Noyce Visiting Professors in residence for the entire first semester, Professors Corinne Manogue and Tevian Dray, distinguished mathematical physicists from Oregon State University.

Professors Manogue and Dray team-taught two special topics courses, one listed in the mathematics department entitled *Vector Calculus for Mathematics and Other Scientists*, the other cross-listed in mathematics and physics entitled *Octonions in Mathematics and Physics*. These courses were both outstandingly successful, as indicated by the course evaluations and informal interviews, which I conducted.

In addition to these courses, Professors Manogue and Dray were extremely active in many ways, including a series of talks at the math department seminar, several physics talks, and several joint talks to member of math and physics. These talks were primarily useful to facilitate the interactions between the departments, to illustrate a successful inter-departmental collaboration, and to expose a revolutionary approach to the foundations of physics. In addition, Manogue and Dray gave a Convocation presentation on "What Does Geometry Tell Us About the Universe" which was very well attended and probably one of the most successful science presentations in recent years.

Finally, Professors Manogue and Dray organized and conducted a very useful lunch meeting entitled "What Works and What Doesn't," exploring common teaching problems and methods in the two departments. It was agreed that this kind of interaction should be pursued on a regular basis.

The Noyce Visitor for next year will be Professor David Fegan, distinguished astrophysicist from University College Dublin, who will be on campus for approximately the first half of the fall semester. Professor Fegan will be teaching a short course in Astrophysics, which is to be a regular part of the physics curriculum.

Professor Fegan has published over 150 papers in refereed journals and over 200 papers in conference proceedings. He is an elected fellow of the Royal Astronomical Society and of the Royal Irish Academy. He has collaborated with Professor Duke at UCD and at the Smithsonian site near Tucson, and it is anticipated that that collaboration will continue at Grinnell.

Professor Fegan will be giving a convocation talk with a title something like "From Joyce to Noyce – Probing Nature's Most Energetic Cosmic Accelerators," in which he will describe personal interactions with James Joyce and his own contributions to the field of High Energy Gamma Ray Technology.

I would like to thank Mary Heitsman for the work she did this year to maintain and improve the Noyce web site, and also thank Karen Thomson for her valuable contributions to the success of the program.

Respectfully submitted,
Arnold Adelberg (for Noyce Committee)
Director
May 28, 2003