ONASSIS INTERNATIONAL PRIZES

Laudation for
Dimitri Nanopoulos
by
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It is an honor and a pleasure to introduce Dimitri Nanopoulos, the recipient of the 2006 Onassis International Prize. I have known Dimitri Nanopoulos for thirty years. At that time we were both at Harvard University; he was working with Steven Weinberg (Nobel 1979) and I with Carlo Rubbia (Nobel 1984). Dimitri and I entered the world of elementary particle physics at the time and the place of a true revolution in science – the advent of the gauge theories to describe the world of subatomic nature.

One measure of a scientist is his choice of problems. Many scientists have keen intellects and mastery of the science of the day. But a challenging problem typically takes years of effort to master, and it is therefore imperative to choose those golden problems that have the potential to make a major breakthrough in how we view nature. By this highest of standards Dimitri has shown his mettle, not once but now several times over.

In 1990 Dimitri and his colleague John Ellis at CERN showed how one could use the newly conjectured gauge field of supersymmetry to unify the couplings of the three fields of nature that are at play within the nucleus: the strong field that binds the nucleus, the weak field that mediates radioactive decay, and the electromagnetic field that binds the atom and illuminates this picture. Until their work it had seemed that the strengths of these three corners of the subnuclear world behaved differently as they evolved from the Big Bang to our world of today. When Dimitri and John took into account this new field of supersymmetry, they showed that the three couplings must have unified into a single field in the first moments of time!

Then in 1999 they shared with Nikos Marvomatos the Gravity Prize for work on another great problem: space-time itself may have a granularity if one could look on the smallest possible distance scale. With the first hints of dark matter and dark energy that now seem actually to dominate our universe, they have been able to tie those ideas to the apparent acceleration of the universe on the largest scale. And so they were awarded a second Gravity Prize in 2005. In choosing these great problems and in producing mind-changing new insights, Dimitri has earned respect among the practitioners of the arts of the smallest and largest scales of time and space.

The Onassis Foundation has made an excellent choice in awarding its 2006 Prize to Dimitri Nanopoulos. His merit as a great scientist was recognized a decade ago by George Pheidias Paraskevopoulos Mitchell, one of the wealthiest Texas oilmen and a son of immigrants from Greece. He endowed a Chair for Dimitri at Texas A&M University a decade ago and has generously supported his research through the past decade, in which Dimitri has made his greatest contributions.

So it is with pleasure and friendship that I commend to you Dimitri Nanopoulos, of Zografou and his lovely wife Myrto Vassiliou, of Platia Koliatsou. Texas is proud of Dimitri, Greece is proud of Dimitri, and I expect that his greatest work is yet to come!