

Science and Politics

Director of Kavli IPMU

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Recently we have witnessed elections in many countries, including Japan, United States, Korea, one looming in Italy, and once-in-a-decade change of leadership in China. Newspapers have been busy reporting projections and results, with various predictions on what the new administrations will do in the near future. Even though what we do is trying to understand how the Universe works, we are actually not immune to changes in politics.

The kind of science we pursue at the Kavli IPMU is *basic research* without immediate payoff to solve problems in the society. It is an important question why taxpayers would support this type of research at all.

In old days, astronomy research was primarily supported by kings, emperors, sultans, and rich noblemen because of presumed predictive power of astrology as well as of need in navigation for imperialistic conquests. Mathematics research is said to have emerged from the need of land surveying after the floods of the Nile in ancient Egypt. And later it became important for cryptography in connection to national security. Physics was well-supported after WWII because of inventions such as radar, laser, transistors, and (gasps) nuclear weapons.

In fact, two months after I arrived in to Berkeley in 1993, a big particle-physics project called Superconducting Super Collider (SSC) was cancelled in the middle of construction, and hundreds of staffs were laid off. This incident is usually attributed to the lack of support for physical sciences after the end of

the Cold War.

What we hope at the Kavli IPMU is that taxpayers and politicians see values in addressing truly fundamental questions about the Universe, *where we came from, where we are going, and why we are here*. We believe that these deep questions inspire young minds to enter scientific and mathematical fields, who end up solving practical problems and create innovations in technology. We've been very encouraged by many young students attending our outreach events, getting excited about math and science. In addition, the goal of basic research is completely global, uniting people from countries that are potentially in conflict. The Kavli IPMU embodies this true nature of science.

