

### Professor Simon Donaldson Biography:

For the past 40 years, Professor Simon Donaldson has been one of the most influential geometers in the world. He studied at Pembroke College Cambridge and received his DPhil at the University of Oxford under the direction of Michael Atiyah. He has worked on a wide range of algebraic and differential geometry with applications to topology and mathematical physics, but is especially famous for work he did while still a post-graduate student. This was when he found out that the space of solutions to a system of non-linear partial differential equations, the self-dual Yang-Mills equations from particle physics, encodes important information about the differential topology of a four-dimensional manifold. This astounding connection between non-linear analysis, physics, and geometry has had profound implications for the mathematics of our times, in particular, the discovery of exotic differentiable structures on four-dimensional Euclidean space. For this outstanding research and many subsequent developments, he has received numerous honours, including the Fields medal of the International Mathematical Union in 1983.