Prof. Dr. Adi Adimurthi

Research Areas:
- Semilinear elliptic equations ---Existence, non existence and uniqueness of positive solutions
- Hardy-Sobolev Inequalities
- Hyperbolic Conservation Laws with discontinuous fluxes---Existence of entropy solutions, Structure of entropy solutions,unicity and convergence of Numerical schemes
- Control and Optimal control problems in hyperbolic conservation laws

Can you explain in a few words how the mathematical regularities that you detected work and why these insights are necessary to develop better models to describe global changes?
Frankly speaking, I do not work in " Modelling of physical Phenomena".
Basically my research dealt with the existence,regularity and numerical approximation of already existing some of the mathematical models coming from fluid mechanics and biology. This is an opportunity for me to meet experts in the field of modelling of physical phenomena to understand better.

Do you see any differences in the scientific work and its devices regarding the focus of research between India and Germany?
I have collaborators in other European countries like, Italy, France, Sweden and Switzerland. Even though I was visiting Max Planck institute some time back, I really do not have any collaborators in Germany and it is difficult to judge the joint venture between India and Germany. I know people in Germany who are very good in their field and we do not have such experts in our country. If we can build a good cooperation between India and Germany, India will really benefit.