

## ABSTRACT

### **Natural Source of Geometric Problems: The Solar system**

Night sky is mysterious. It is more to us than to human beings who lived 300 years ago. The reason is that we simply do not look above as they used to do. In this talk we will see with surprise that simple observations on the solar system accompanied with a reasonable geometry background leads us prove interesting facts. We will observe that the fundamentals of 20th century geometry owe a lot to the questions raised about the solar system. We will talk about classical mechanics, Hamiltonian dynamics, many-body theory, symplectic geometry and KAM theory.