



T.C.  
İSTANBUL TEKNİK ÜNİVERSİTESİ  
FEN EDEBİYAT FAKÜLTESİ  
FİZİK MÜHENDİSLİĞİ BÖLÜMÜ  
MASLAK 34469 İSTANBUL

## İTÜ Fizik Mühendisliği Bölümü Bölüm Seminerleri

**Konuşmacı : Prof. Dr. Oleksandr Zhuk (Odessa I.I. Mechnikov National University)**  
**Konuşma Başlığı : Effect of the spatial curvature of the Universe on the form of the gravitational potential**

### Konuşma Özeti

Within the cosmic screening approach, we obtain the exact formulas for the velocity-independent gravitational potentials produced by matter in the form of discrete sources distributed in the flat, open and closed Universes. These formulas demonstrate that spatial curvature of the Universe considerably affect the form of the potentials and forces. While in the flat and open Universes the gravitational force undergoes exponential suppression at cosmological distances, in the closed Universe the force induced by an individual mass is equal to zero at the antipodal point with respect to this mass.

### Kaynakça

[1] Eur. Phys. J. C 79, 655 (2019)

### Kısa özgeçmiş

Graduated from the Moscow Engineering Physical Institute, PhD received in P.N.Lebedev Physical Institute (Moscow), Diploma of Doctor of Sciences (Habilitation) defended in N.N. Bogolyubov Institute for Theoretical Physics ( Kiev, Ukraine). Visiting professor in the Cambridge University, Princeton University, Columbia University, and in universities of Berlin, Cologne, Munich, Madrid, Lisbon, Covilha, etc. Senior Associate at ICTP in Trieste (12 years), visiting scientist at CERN (for last 12 years). For two years, visiting professor of the Physical Department of Istanbul Technical University (2017-2018 – due to the grant of TUBITAK, 2018-2019 – professorship of the Physical Department of ITU). He is a full Professor of the Odessa I.I. Mechnikov National University (Odessa, Ukraine) at the moment.

**Yer** İTÜ Fizik Mühendisliği Bölümü Seminer Salonu (FEB L1 Z\_\_ )  
**Zaman** 20 Eylül 2019 Cuma  
15.00 (14.45 Çay- Kahve İkram servisi)

Bölüm seminerleri ağ sayfasından ayrıca tüm bilgilere ulaşabilirsiniz:  
<http://www.fizik.itu.edu.tr/tr/seminars.php>