

**THE IONOSPHERE AS AN OPEN PLASMA
LABORATORY, NEW CAPABILITIES**

L. Marochnik

University of Maryland, College Park, MD, USA

I am going to review our understanding of the Universe which was drastically changed since the Dark Matter and Dark Energy were discovered. By the end of the 1990s, the “old Universe” consisting of 99% plasma matter cedes its place to the Dark Energy and Matter Universe. In this “new Universe”, we understand now just about 4-5% of its content. I will review ideas and observations.