

## **Cosmological Implications of Redshift-space Clustering**

**Yong-Seon Song\***

**Korean Astronomy and Space Science Institute, South Korea**

**\*Email of Presenting Author: [yong@kasi.re.kr](mailto:yong@kasi.re.kr)**

It is a prime interest of our research to understand gravitational physics and to develop cosmological applications exploiting the next generation of redshift-space surveys, scheduled to be launched in the near future, such as DESI or EUCLID. The future precision surveys are promising to resolve outstanding problems in modern physics. With the level of precision available in future surveys, We can use the high resolution maps expected to be gained from next-generation on surveys to test the foundations of gravity and particle physics. The gravity known to us at solar system scales (GR: general relativity) is possibly challenged at cosmological scales. The measured cosmic acceleration that we have ascribed to the presence of dark energy (DE) could be a signal that GR is broken in some way.

References:

- [1] Song, Y-S, Okumura T, Taruya, A, arxiv 1309.1162.
- [2] Linder, Oh, Okumura, Sabiu, Song, Phys. Rev. D 89, 063525 (2014).