

**S001-43**

**A 会場 : 11/6 AM1 (9:00-10:30)**

**09:25~09:40**

## 人工的な球偏波アルヴェン擾乱の生成について

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## **On generating synthetic spherically polarized Alfvenic fluctuations**

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Spherical Alfvenic fluctuations in the solar wind have been investigated over the past quarter century [Tsurutani et al, JGR, 2018; and references therein]. Magnetic switchbacks, which is now being watched with interest by recent observations of Parker Solar Probe (PSP), also indicate the spherical Alfvenic motion [e.g., McManus et al, ApJ, 2022]. The spherical Alfven wave is an exact solution of ideal MHD system and generating synthetic data of such fluctuations has also been investigated [e.g., Primavera et al, ApJ, 2019; Valentini et al, ApJ, 2019; and references therein]. In this presentation, we revisit the way of generating synthetic spherically polarized Alfvenic fluctuations. It is shown that arc-polarized waves[e.g., Vasquez, JGR, 1996; DelZanna, GRL, 2001], which is a class of spherical Alfven waves, with nonmonochromatic spectra can be generated in several ways. We also discuss Langevin modeling of particles which describes the deviation from the ideal Alfvenic state.