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## **Baryon Asymmetry, Chiral Asymmetry, and the Magnetic Fields in the Universe**

*Monday, 3 June 2019 14:15 (45 minutes)*

I will talk about the nontrivial relationship among the baryon, the chiral asymmetry and the magnetic fields in the Universe. They are related through the chiral anomaly in the Standard Model, and hence the hypermagnetic fields can produce the baryon and the chiral asymmetry of the Universe and vice versa. This opens new possibilities of nontrivial phenomena in the early Universe. I will also discuss some of their observational signatures.

**Presenter:** KAMADA, Kohei

**Session Classification:** JHW