

# ***Seminar 2024***

**Math**

## Existence of solution for the nonlinear Vlasov-Poisson-Fokker-Planck Equation

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**과학관 262호**

**Abstract:** In this talk, we discuss the existence of solution for the nonlinear Vlasov-Poisson-Fokker-Planck Equation. For this, we first set perturbation and find perturbed system. Next, we will look for coercivity of linear part with macro-micro decomposition. Since the temperature has exponent  $\beta$ , we divide cases and we consider  $\beta = 1$ . Energy estimate and estimate about the dissipation of microscopic part are used to show the existence of solution.



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