

## Research Achievements

Throughout my research time, I found the research strength of advanced problem-solving skills based on flexible thinking [1] and [2]. During the research, I faced many questions and many possibilities [3]. and how to overcome them, and when questions are formulated [4]. It is also possible to identify strengths regarding the analytical approaches adopted to produce new knowledge and integrate it into findings from previous studies as a feature of the research in the field of science research [5]. The strengths of the studies are reflected when the newly generated knowledge can be integrated into findings from previous studies [6] using, adapting, and extending analytical codes from other studies [7]. Considering the tensions between general and subject-specific approaches and how analytical approaches are used from previous studies (in particular the use of previous code systems) to generate new knowledge [8]. Furthermore, I have studied many books meanwhile attending many mathematic workshops [3] to [8] and meet many experienced professors to get experience and to have good research that will be useful in many fields. This fact shows that I have the ability to carry out research that can solve problems based on flexible thinking and initiative [1] and [2].

### Research and presentation (oral)

[1] Habibi, Sadaf, and F. Takahashi: "Asymptotic behavior of least energy solutions to the Finsler Lane-Emden problem with large exponents" *Discrete and Continuous Dynamical Systems (DCDS)*, 42, no.10, (2022)

[2] Habibi, Sadaf, and F. Takahashi: "Applications of p-harmonic transplantation for functional inequalities involving a Finsler norm" *SN Partial Differential Equations and Applications*, 3, no.3, Paper No. 32,(2022).

[3] Habibi, Sadaf: "A priori estimates for singular radial solutions to some semilinear elliptic equations with supercritical growth", *The 13th Graduate Student Workshop on Mathematics*, Osaka City University, (31, July 2019) (without review)

[4] Habibi, Sadaf: "Asymptotic behavior of least energy solutions to the Finsler Lane-Emden problem in dimension two", *The 14th Graduate Student Workshop on Mathematics at Kyungpook National University (Zoom)* (28, July 2021) (without review) I was awarded for the PRESENTATION EXCELLENCE

[5] Habibi, Sadaf: "Asymptotic behavior of least energy solutions to the Finsler Lane-Emden problem with large exponents", *PDE and Real Analysis for Young Researchers (Osaka University, Osaka City University, and Tokyo University of Science)* (Zoom) (December 17, 2021) (without review)

[6] Habibi, Sadaf: "Asymptotic behavior of least energy solutions to the Finsler Lane-Emden problem with large exponents", (*Seminar on Differential Equations at Osaka Metropolitan University 2022*(September 6, 2022))

[7] Habibi, Sadaf: "Applications of p-harmonic transplantation for functional inequalities involving a Finsler norm" (*The 15th Graduate Student Workshop on Mathematics at Osaka Metropolitan University (with live streaming via Zoom)* (26-28, July 2022))

[8] Habibi, Sadaf: "Applications of p-harmonic transplantation for functional inequalities involving a Finsler norm" *PDE and Real Analysis for Young Researchers (Osaka University, Osaka City University, and Tokyo University of Science)* (Zoom) (December 23, 2022)

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