Dear Takayuki Kawashima-sensei,

I hope this email finds you well. My name is Krish Bakshi, and I am writing to express my keen interest in contributing to your research field in statistics, mathematical optimization, and epidemiology at the Tokyo Institute of Technology, and applying for the master’s program for the Fall/September 2025 intake. Your work, particularly your publications such as *"Robust and Sparse Regression in GLM by Stochastic Optimization"* and *"On Difference Between Two Types of γ-divergence for Regression,"* resonates deeply with my academic interests and career aspirations.

I am currently pursuing a Bachelor’s degree in Computer Engineering at Savitribai Phule Pune University, where I have developed a strong foundation in statistical modeling, machine learning, and optimization techniques, maintaining a strong academic record of 8.5 CGPA. My coursework in Probability and Statistics and Machine Learning has prepared me to tackle complex problems involving data-driven insights and mathematical rigor.

During my Data Science Internship at Profcess, I contributed to designing and deploying scalable data pipelines for time series forecasting, utilizing tools such as Azure Databricks. I also developed predictive models, including XGBoost and SARIMA, which improved forecasting accuracy and facilitated data-driven decision-making. My project portfolio includes the development of PulseMate, an AI-powered chatbot leveraging large language models for medical applications, and a time series forecasting model that achieved a significant improvement in accuracy through effective feature extraction and optimization.

In addition, my Practical AI with Python certification underscores my commitment to advancing my expertise in statistical modeling and optimization, while my Japanese proficiency (JLPT N3) qualifies me to integrate seamlessly into a Japanese academic environment and collaborate effectively with your team.

What excites me most about your research is its focus on robust and sparse modeling techniques and their applications in practical domains like epidemiology and regression analysis. I am particularly inspired by your exploration of γ-divergence in regression problems, as it aligns with my passion for developing robust statistical models that can withstand real-world data complexities.

Under your guidance, I hope to contribute to your research by leveraging my skills in Python, PyTorch, TensorFlow, and statistical data analytics to address challenging problems in robust optimization and sparse modeling.

Thank you for considering my application. I would be honored to discuss how my skills and experiences align with your lab’s objectives. I look forward to the opportunity to collaborate and contribute to your impactful research.

**Sincerely,**

Krish Bakshi