Journal Name:	Asian Basic and Applied Research Journal
Manuscript Number:	**Ms_ABAARJ_1792**
Title of the Manuscript:	**COMPARATIVE STUDY OF ACCELERATING AND DECELERATING CORONAL MASS EJECTIONS (CMEs) DURING SOLAR CYCLES 23 AND 24.**
Type of the Article	

PART 1: Comments

	Reviewer's comment	**Author's Feedback** *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.		
Is the title of the article suitable? (If not please suggest an alternative title)		
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.		
Is the manuscript scientifically, correct? Please write here.		
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.		

Is the language/English quality of the article suitable for scholarly communications?		
Optional/General comments	**I have finished a review of this article.** **This paper presents a comparative analysis of the behavior of accelerating and decelerating Coronal Mass Ejections (CMEs) during Solar Cycles (SCs) 23 and 24. The study investigates key CME parameters—Linear Speed (LS), Speed at 20 solar radii (20R), Angular Width (AW), Mass (M), and Kinetic Energy (KE)—and examines their relationships with solar activity indicators such as Sunspot Number (SSN) and Sunspot Area (SSA). Data for CMEs were sourced from the LASCO CME Catalogue, while solar activity data were obtained from NASA's OMNI Web Service Archive. The study reveals that decelerating CMEs exhibit stronger correlations with SSN and SSA during SC 23 compared to SC 24, reflecting the heightened solar activity during SC 23. Conversely, accelerating CMEs demonstrate weaker dependencies on solar activity, likely influenced by Lorentz forces rather than aerodynamic drag. Statistical techniques such as time series analysis, distribution plots, and regression models were used to interpret CME propagation patterns. The authors emphasize the significance of understanding CME dynamics for improving space weather predictions and mitigating their potential impact on Earth's technological systems. The paper concludes by noting the reduced solar activity in SC 24 and proposes further research into CME propagation during the upcoming Solar Cycle 25.** **This article presents a well-structured comparative analysis of accelerating and decelerating CMEs during Solar Cycles 23 and 24, highlighting key relationships with solar activity indicators. Addressing the comments below will enhance clarity, consistency, and scientific rigor. I would suggest editor to accept this article once authors work on the following comments.** **Comments:** **1. In introduction, put couple of sentences highlighting how this study builds upon or differs from prior CME studies.** **2. A brief sentence highlighting how this study builds upon or differs from prior CME studies. Introduce all abbreviations at their first mention and ensure they are consistently formatted throughout the document.** **3. Some figures (e.g., Fig. 1, 2a) are referenced without immediately visible descriptions. Ensure that all figures have clear captions explaining their content and relevance to the analysis.** **4. There are minor grammatical errors in some sentences. Replace "The are different distinct advantages..." with "There are distinct advantages..."** **5. Conclusion section: write couple of sentences highlighting specific questions for future studies, such as how Solar Cycle 25 might compare to earlier cycles or the potential for improved CME tracking methodologies.** **6. First paragraph of introduction section: You need reference for this sentence, "When CMEs with southward magnetic fields reach Earth, they can disrupt power grids, telecommunications, and satellites, and pose risks to astronauts." I would suggest these two articles. https://ph01.tci-thaijo.org/index.php/ThaiJPhys/article/view/244031 and https://www.cell.com/heliyon/fulltext/S2405-8440(24)06756-2** **7. Second paragraph of introduction section: "During periods of increased solar activity, the emergence and reconnection of magnetic fields often trigger solar flares and CMEs". You need a reference for this text. I would suggest two articles: https://iopscience.iop.org/article/10.3847/1538-4357/ad4797/meta and https://link.springer.com/article/10.1134/S0016793222020074** **8. References are comprehensive but inconsistently formatted. Ensure uniform citation formatting (e.g., APA style) and check for consistency in author order and year placement (e.g., "Onuchukwu & Umuogbana, 2024" vs. "Umuogbana & Onuchukwu").** **9. I would suggest including confidence intervals or p-values where appropriate to strengthen the analysis and interpretation.** **Thank you.**	

PART 2:

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

Reviewer Details:

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