# Article information:

滑模观测器的基本原理及仿真实现 - 哔哩哔哩
<https://www.bilibili.com/read/cv16660880?spm_id_from=333.999.0.0>

# Article summary:

1. Observer technology is used to observe the state of a system that is not easy or costly to measure in control design.

2. Luenberger observer is a common observer that uses linear feedback to track the state of observation.

3. Sliding mode observer, based on sliding mode control, can also be used in observer design and has advantages such as robustness and fast response.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

作为一篇技术文章，本文主要介绍了滑模观测器的基本原理及仿真实现。然而，在阅读过程中，我们发现该文章存在以下问题：

1. 缺乏对滑模观测器的优缺点进行客观评价。虽然文章提到了滑模观测器具有鲁棒性和快速响应等优点，但并未深入探讨其在实际应用中可能存在的局限性和风险。

2. 文章没有充分考虑读者的背景知识水平。在介绍滑模观测器之前，作者提到了可观测性的概念，并给出了相关公式。然而，对于没有接受过控制理论教育的读者来说，这些内容可能会造成困惑。

3. 文章缺乏对其他类型观测器的比较分析。尽管文章提到了Luenberger观测器作为最常见的观测器之一，但并未与其他类型的观测器进行比较分析，无法全面地评估滑模观测器在不同场景下的适用性。

4. 文章存在语言表述上的不准确和混乱。例如，在第二段中，“the collection of the system state”应该是“the measurement of the system state”，而在第三段中，“full rank”应该是“full rank observability”。

5. 文章缺乏实例分析和案例研究。尽管文章给出了Simulink仿真结果，但并未提供实际应用案例或者更加具体、详细的示例分析。

总之，本文虽然介绍了滑模观测器的基本原理及仿真实现，但在内容丰富度、客观性、语言表述等方面还有待改进和完善。

# Topics for further research:

* Limitations and risks of sliding mode observer
* Consideration of readers' background knowledge level
* Comparison and analysis of different types of observers
* Accuracy and clarity of language expression
* Example analysis and case studies
* Improvement and refinement of content richness and objectivity

# Report location:

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