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The Comparison of Accuracies of Results Obtained from Bernese v5.2 Software and Web-Based PPP Services

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Presentation Outline

1- Introduction

2- GNSS Softwares

- **2.1.** Bernese v5.2
- **2.2.** Web-Based PPP Services

3. Aplication

4. Results

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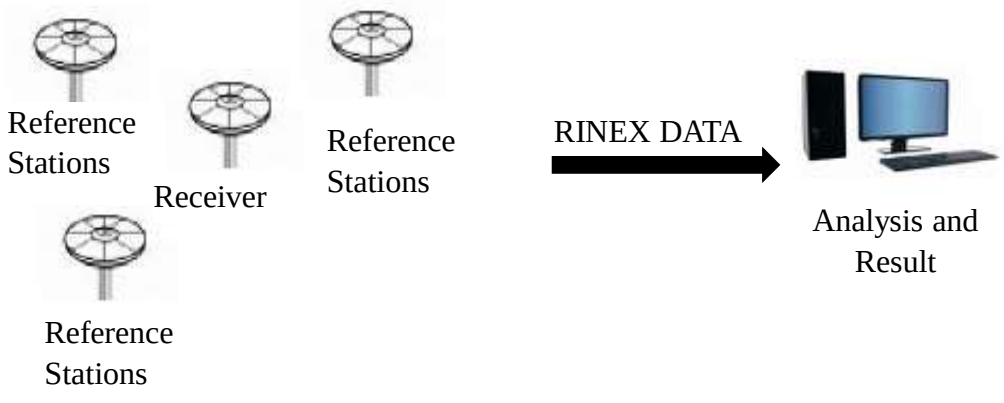
1- Introduction



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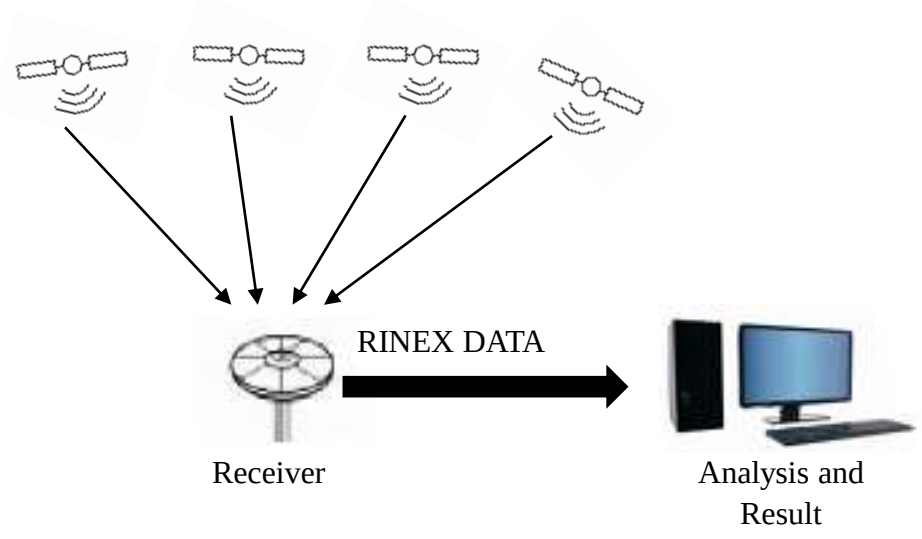

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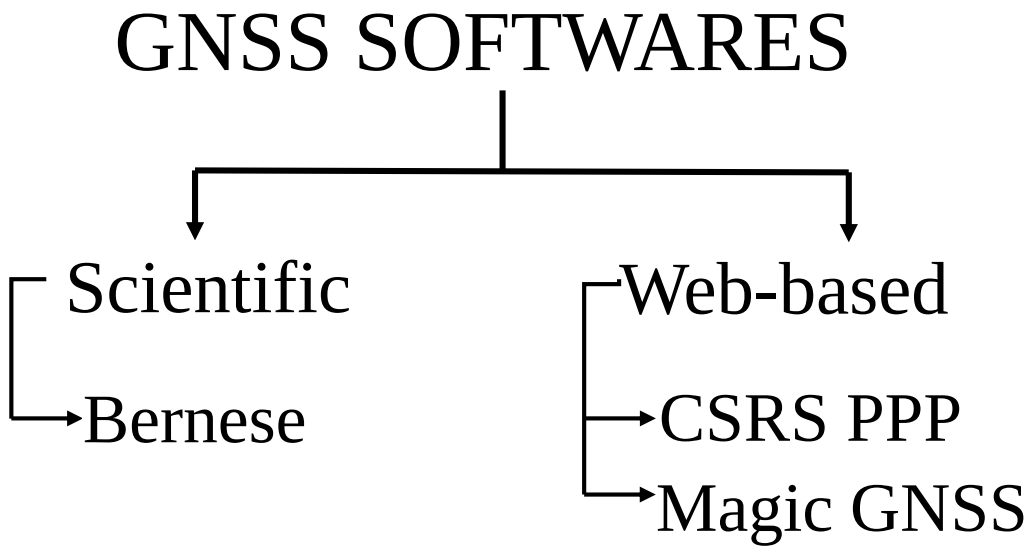
2- GNSS Softwares

Scientific and web-based software can be used in evaluating GNSS measurements to obtain PPP coordinates.

2- GNSS Softwares



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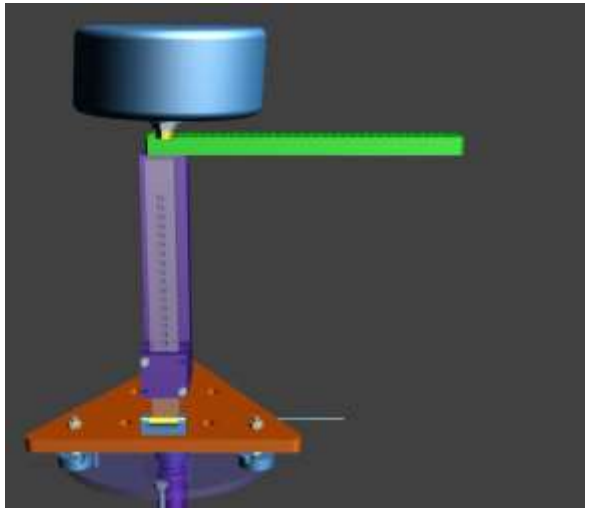
3- Application



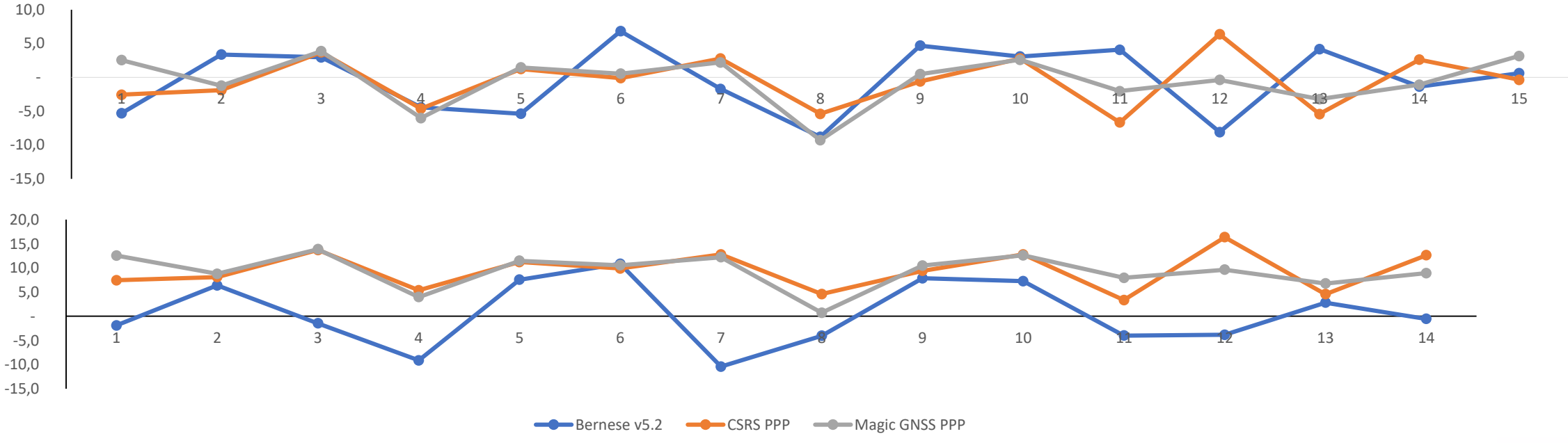
3- Application

Used software	Difference statistics	1 cm	2 cm	3 cm	4 cm	5 cm
Bernese v5.2	Max (mm)	6.8	10.9	12.0	7.1	10.3
	Min (mm)	- 8.8	-10.4	-6.1	-4.3	-7.9
CSRS-PPP	Max (mm)	6.4	2.7	4.0	4.1	3.1
	Min (mm)	-6.7	-5.8	-5.2	-8.5	-6.0
Magic GNSS PPP	Max (mm)	3.9	3.1	6.3	2.2	2.5
	Min (mm)	-9.3	-8.1	-6.2	-6.6	-10.5

3- Application

Used software	1cm	2 cm	3 cm	4 cm	5 cm
Bernese v5.2	±3.3	±5.5	±4.4	±2.1	±5.4
CSRS-PPP	±2.0	±1.1	±1.2	±2.3	±1.6
Magic GNSS PPP	±2.5	±2.2	±2.2	±1.8	±3.7
The units of numerical values are mm.					

3- Application



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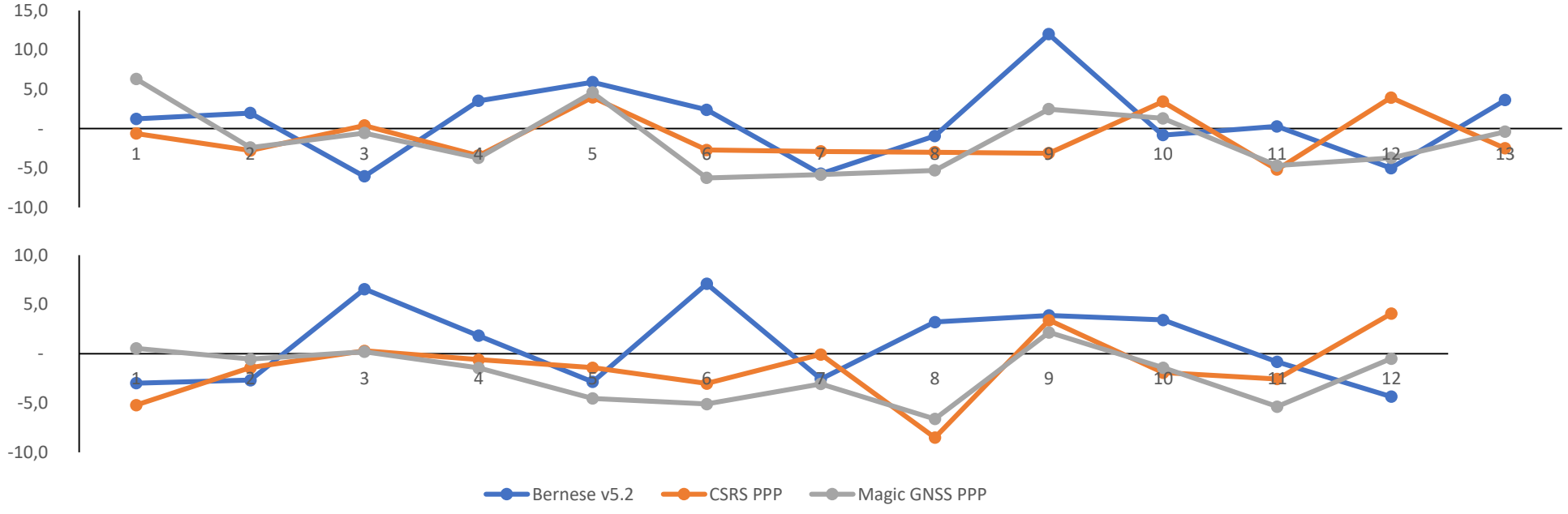

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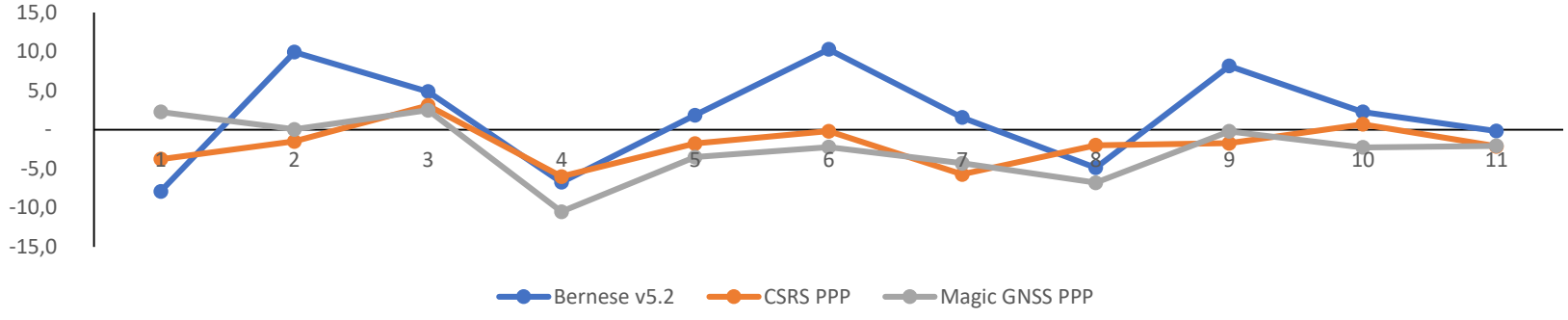

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4- Results

Depending on the technology that has evolved in recent years, it is possible to determine the point locations with a single GNSS receiver in cm / dm accuracy.

Coordinates obtained after the evaluation were compared with 1 cm, 2 cm, 3 cm, 4 cm and 5 cm differences.

4- Results

In conclusion, it is observed that at 1 cm, 2 cm, 3 cm and 5 cm, the best results were obtained by CSRS PPP, Magic GNSS and Bernese v5.2 GNSS software, respectively. Also for 4 cm, the best results were given by the Magic GNSS method, Bernese v5.2 GNSS software and CSRS PPP, respectively.

Thank you
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