Analysis of the Inverse Barometer Effect at Pemba, Mozambique coast

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1. Introduction and motivation

The Inverse Barometer Effect (IBE): sea level (SL) respond in opposite sense to changes in Barometric Pressure (BP), which contributes to storm surges.

3. Results

Linear correlation: Correlation is 0.74

Tides vs Barometric Pressure in Pemba tide gauge during 2008-2009.

4. Conclusion

The tide and barometer pressure shows a negative relation, where the IB occur in Pemba Bay.

Constraint: gaps in the dataset. Required: longer datasets.

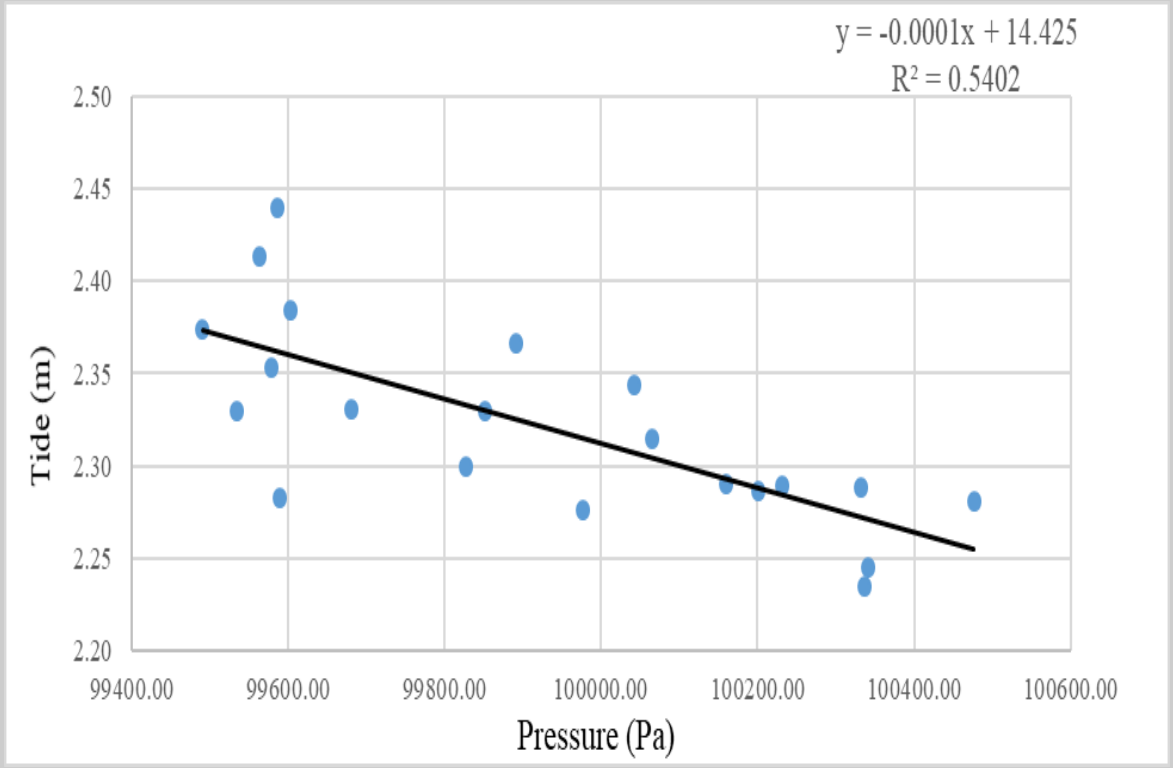

Fig.1: Tides vs Barometric Pressure (2008-2009.)

Thanks for your attention!