

EIT monitoring of breathing dolphins

Conf. EIT 2024, Hangzou, China

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2024-06-30

Dolphins and EIT



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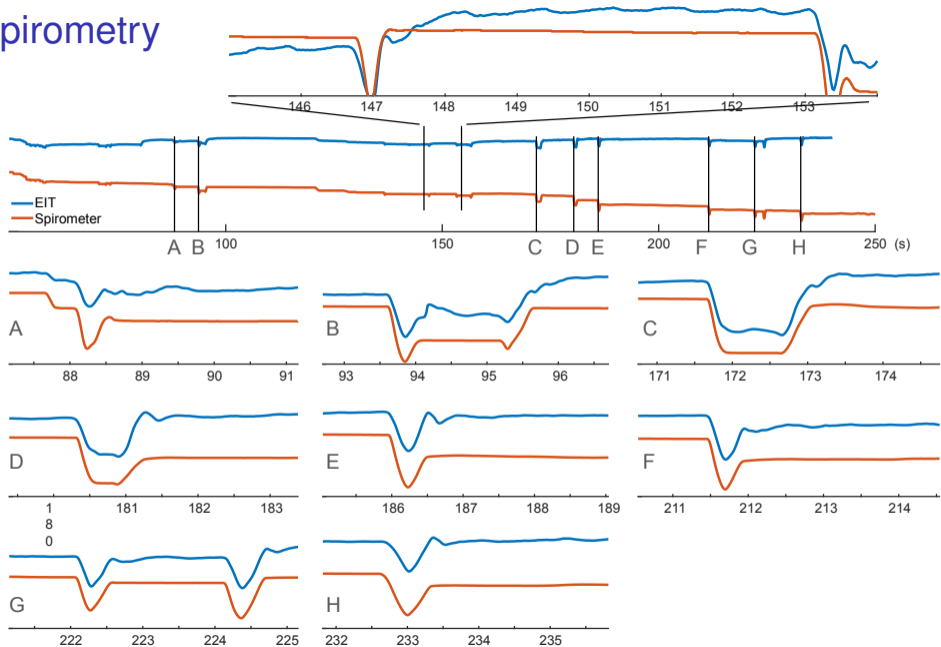
Dolphins and EIT ... and more fish



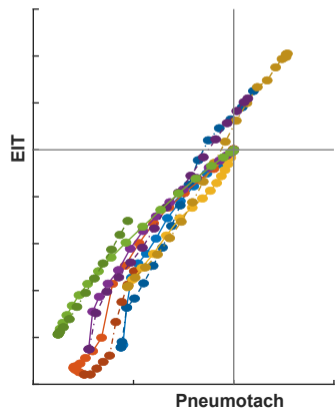
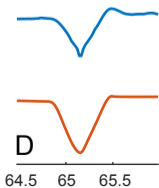
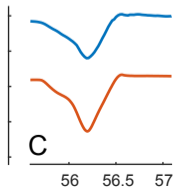
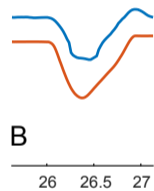
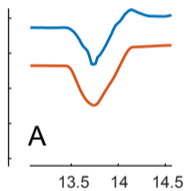
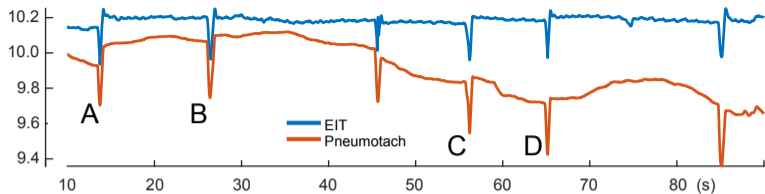
Prevent EIT current from travelling through water



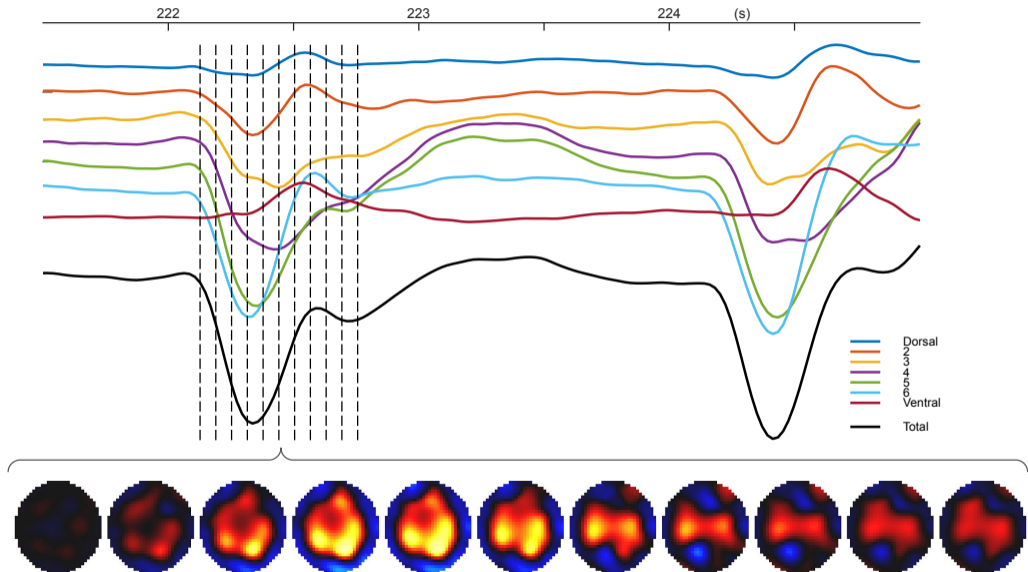
EIT and Spirometry



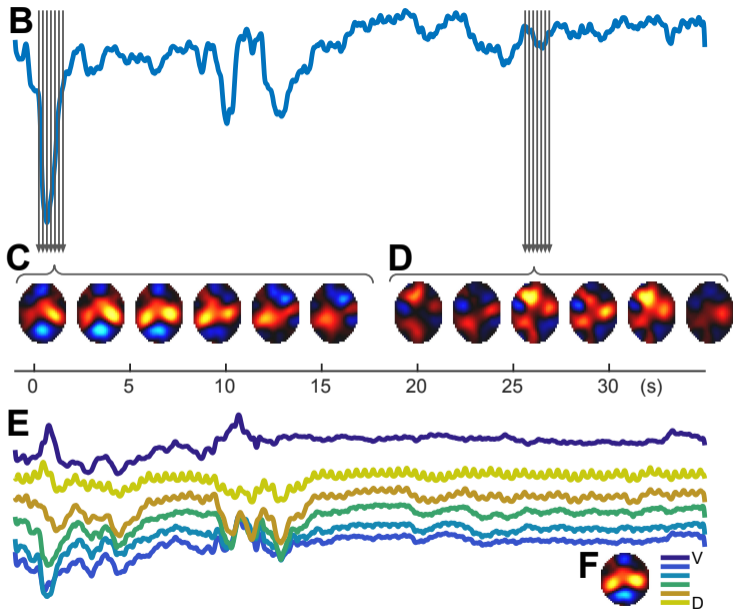
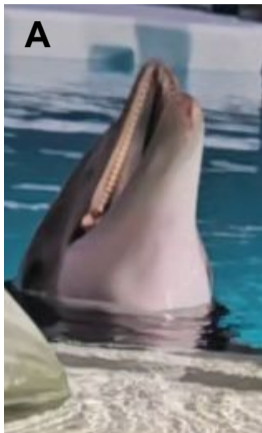
EIT vs Spirometry



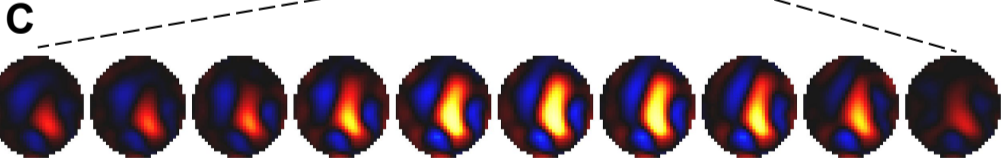
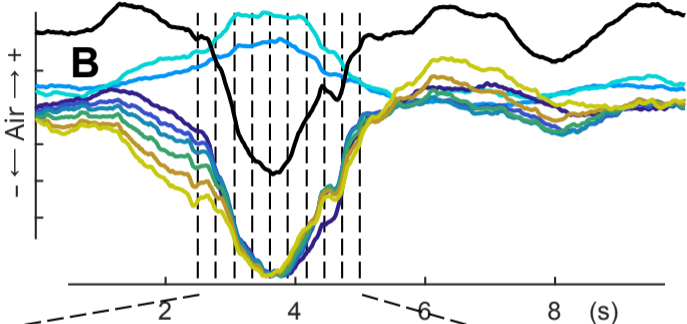
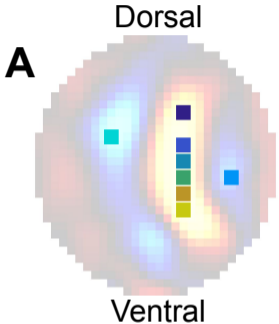
EIT ROIs during breath (end-inspiratory reference)



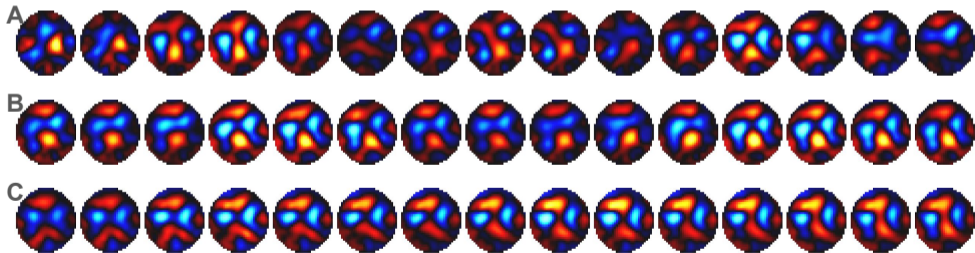
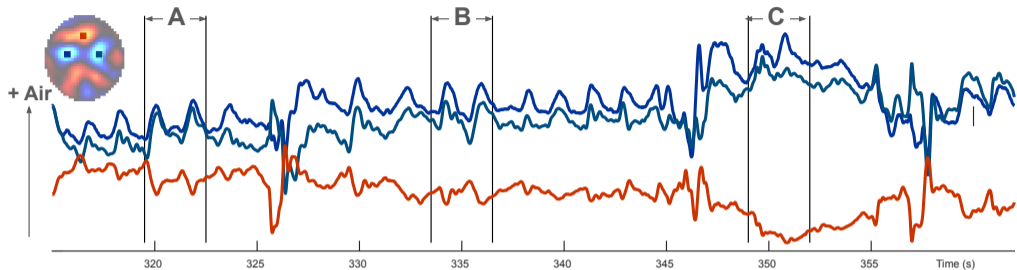
Movement artefacts?



Chuff breath (a forced expiratory manoeuvre)



Breath-hold and slow ascending from 1m depth



Summary

- EIT measurements in water require an insulating belt
- Images correlate well to Spirometry
- Appears to show very interesting physiology
- Need to systematically validate findings