

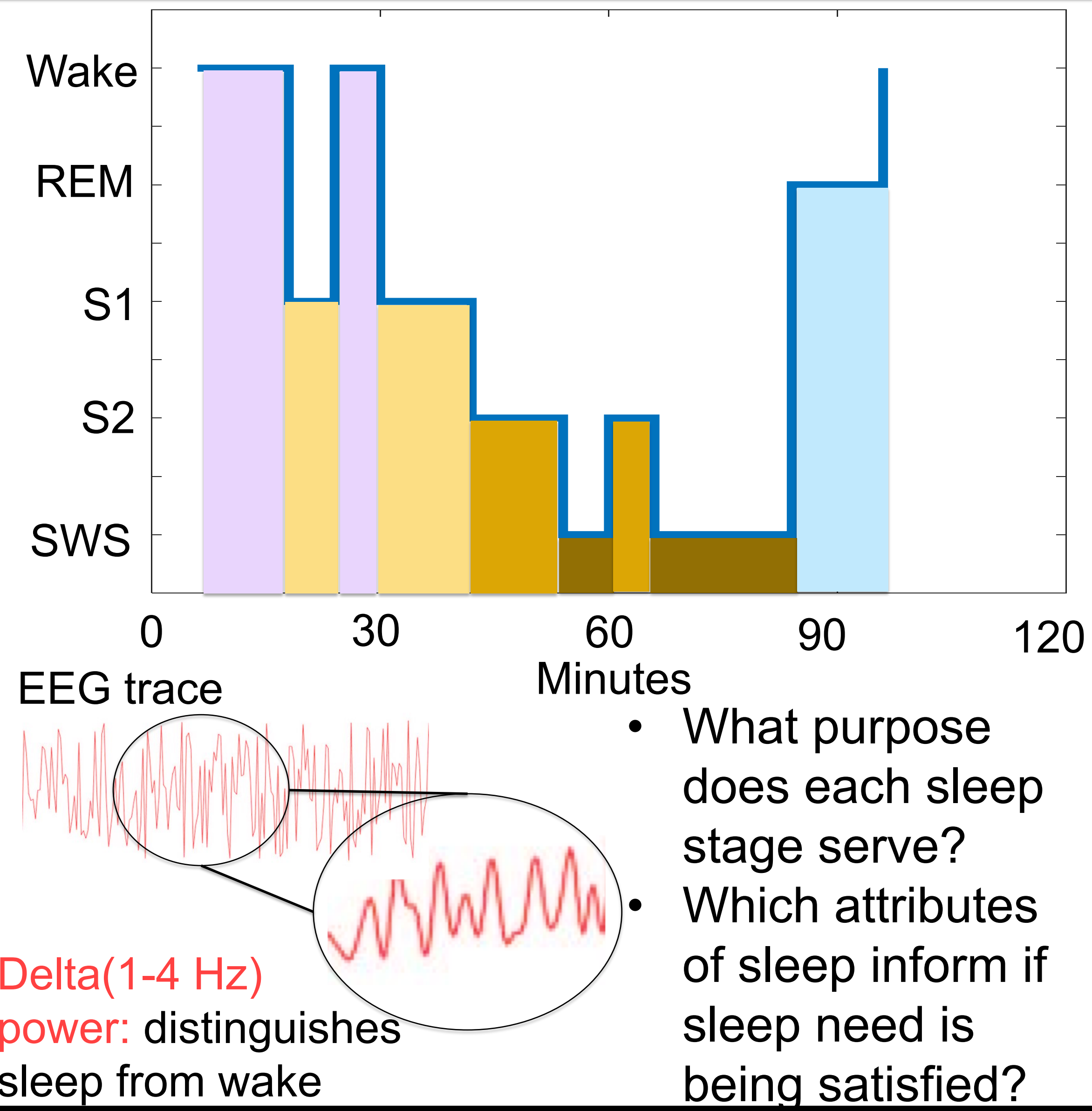
# What is the neural signature that sleep need is being met?

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## Background



## Methodology

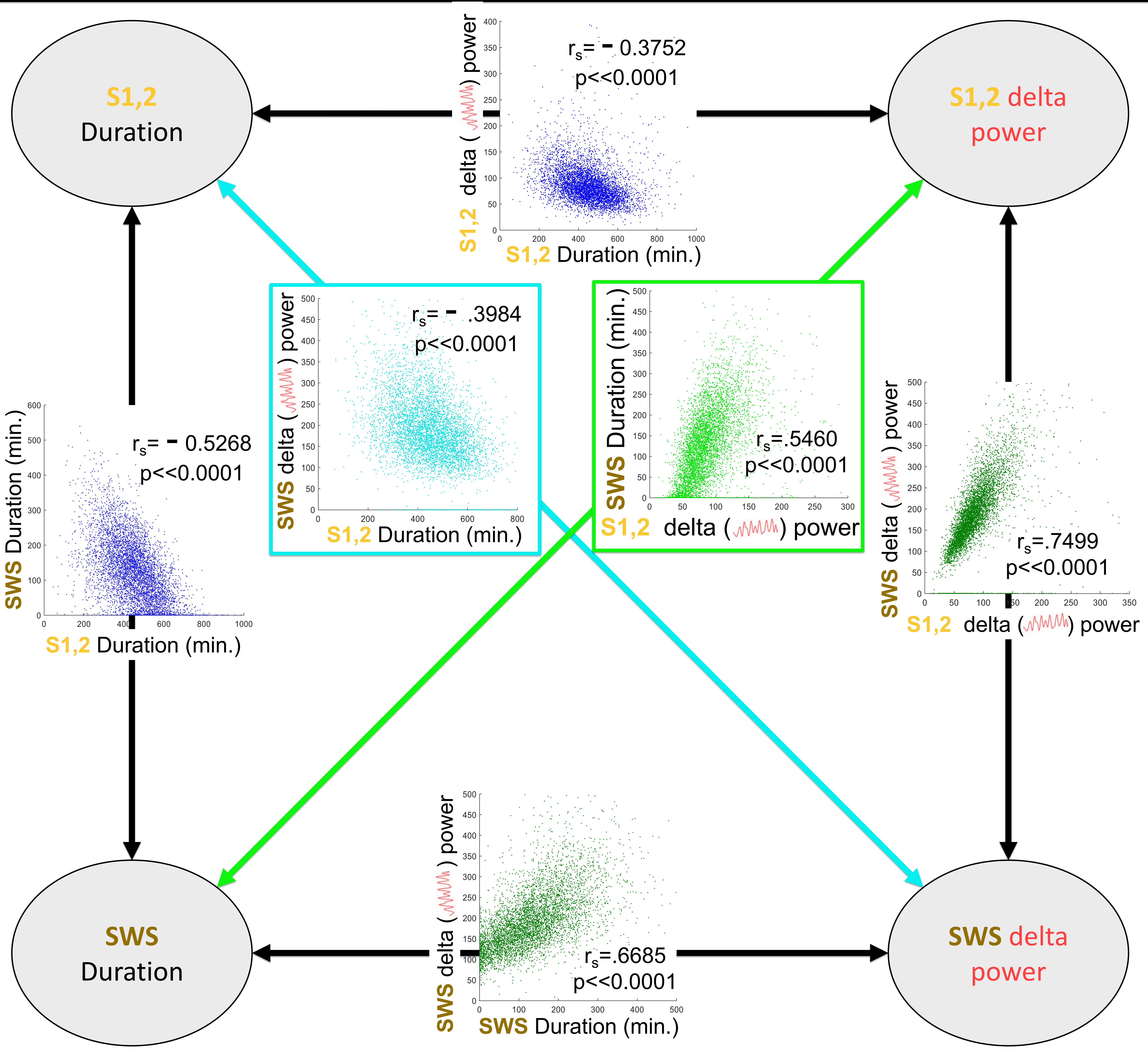
- Processed EEG signal for 5000+ participants (8000+ nights) [1, 2, 3, 4].
- Marked sleep cycles and calculated spectral power by stage, throughout nights
- Isolated subjects who lacked SWS, identified matched controls (had SWS) to see difference in sleep need satisfaction

## Conclusion

- Satisfying sleep need is analogous to getting to your destination as quickly as possible in your car. You cannot get to top gear (**SWS**) right away, so you have to go through the intermediate gears (**S1,2**) as fast as possible ( $\downarrow$  **S1,2** duration). Doing so would mean higher revs (**delta power**) the entire time ( $\uparrow$  **delta power S1,2,SWS**) and spending as much time in top gear as you can (**SWS**).



## Results



## References

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