

Interferometric stabilisation of a fibre-based optical computer

Experimental study

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ECOLE
POLYTECHNIQUE
DE BRUXELLES

Outline

- 1 Introduction
- 2 Reservoir Computing
- 3 Photonic reservoir computer with wavelength division multiplexed neurons
- 4 Interferometric stabilisation of reservoir cavity
- 5 Conclusion

- The development of next generation technological computation paradigm is investigated
- Optical computers use light as information carrier → *fast*
- Optical computers do not need to rely on boolean logic as classical computers do, new computation paradigms based on specific physical properties of light can be implemented
- *Photonic reservoir computing* is one of such implementation

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