

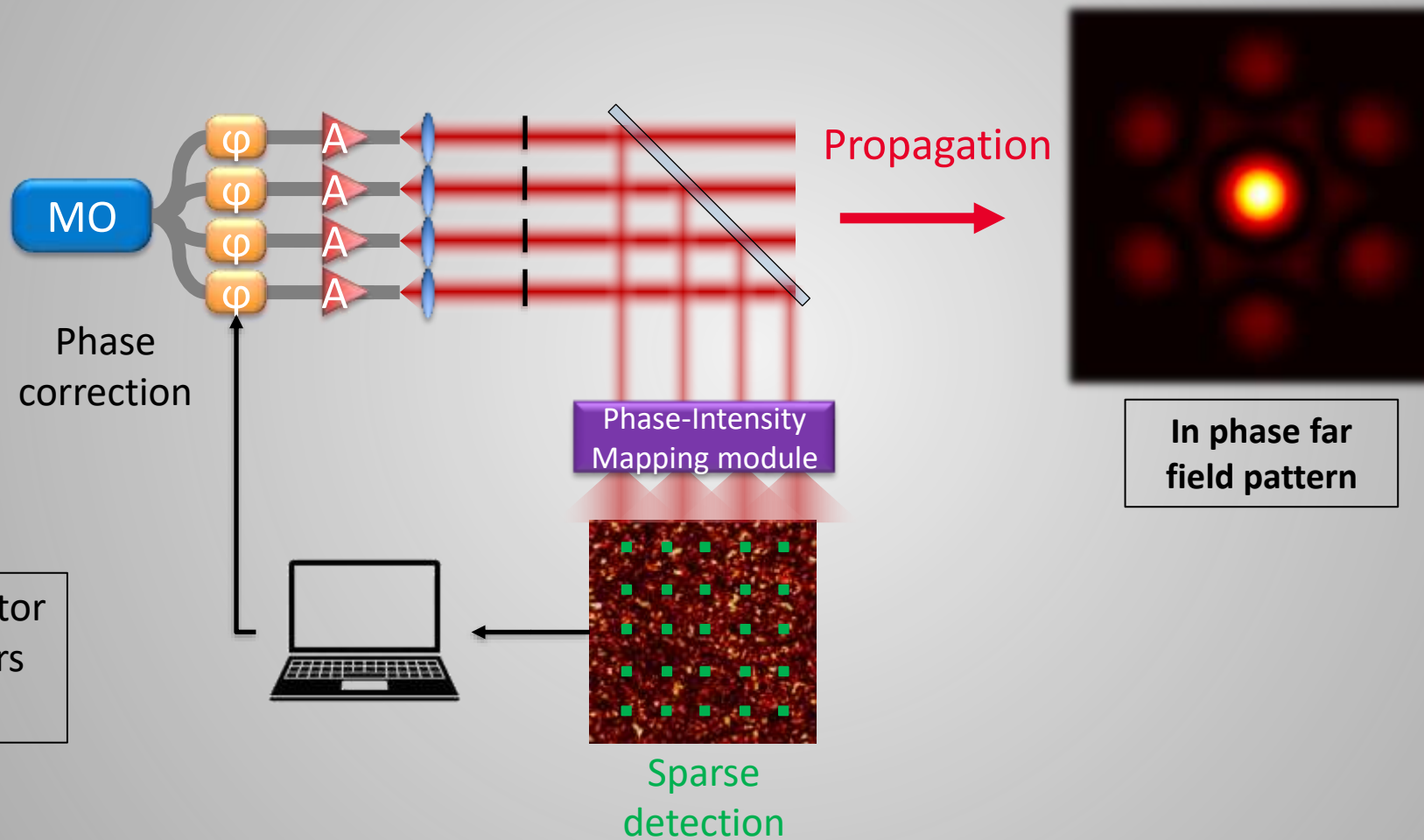


Optimization algorithms applied to the phase control of an array of laser beams

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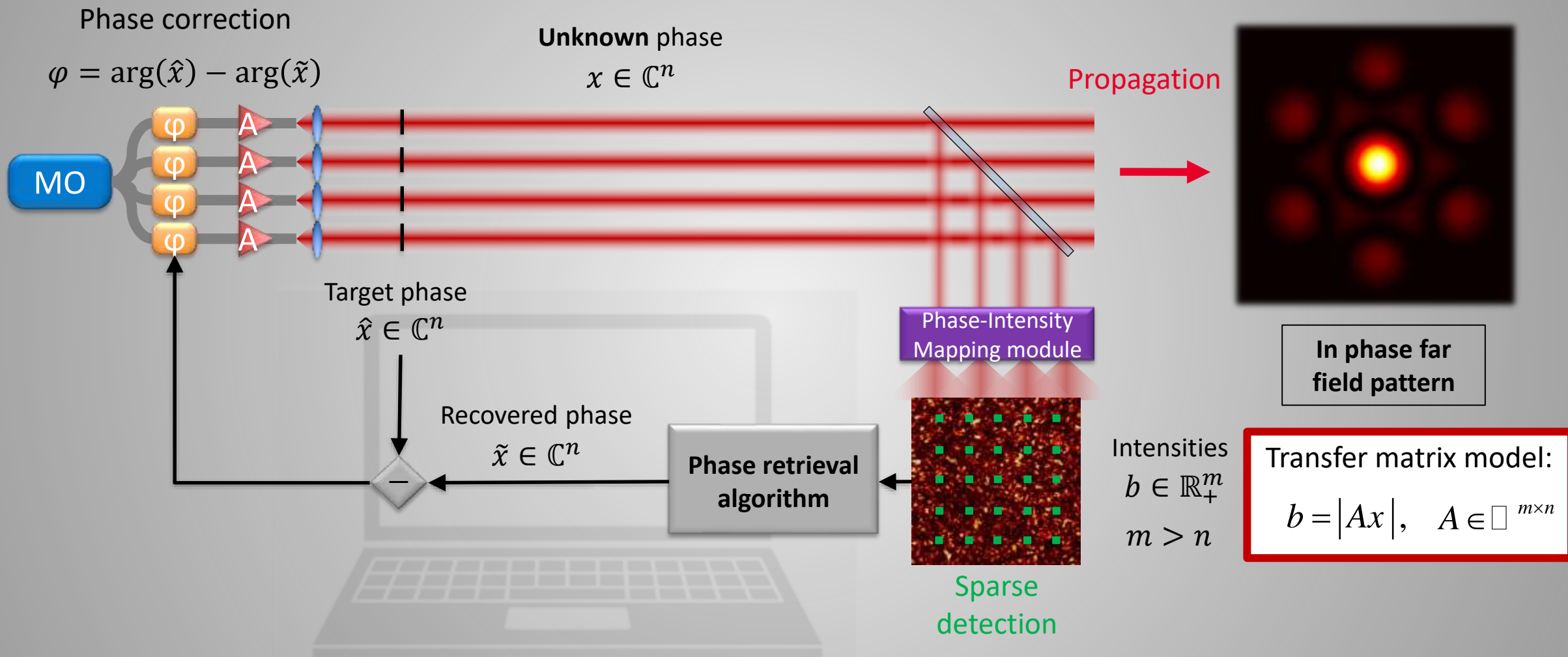
Supervisors: Paul Armand and Vincent Kermene

Coherent beam combining

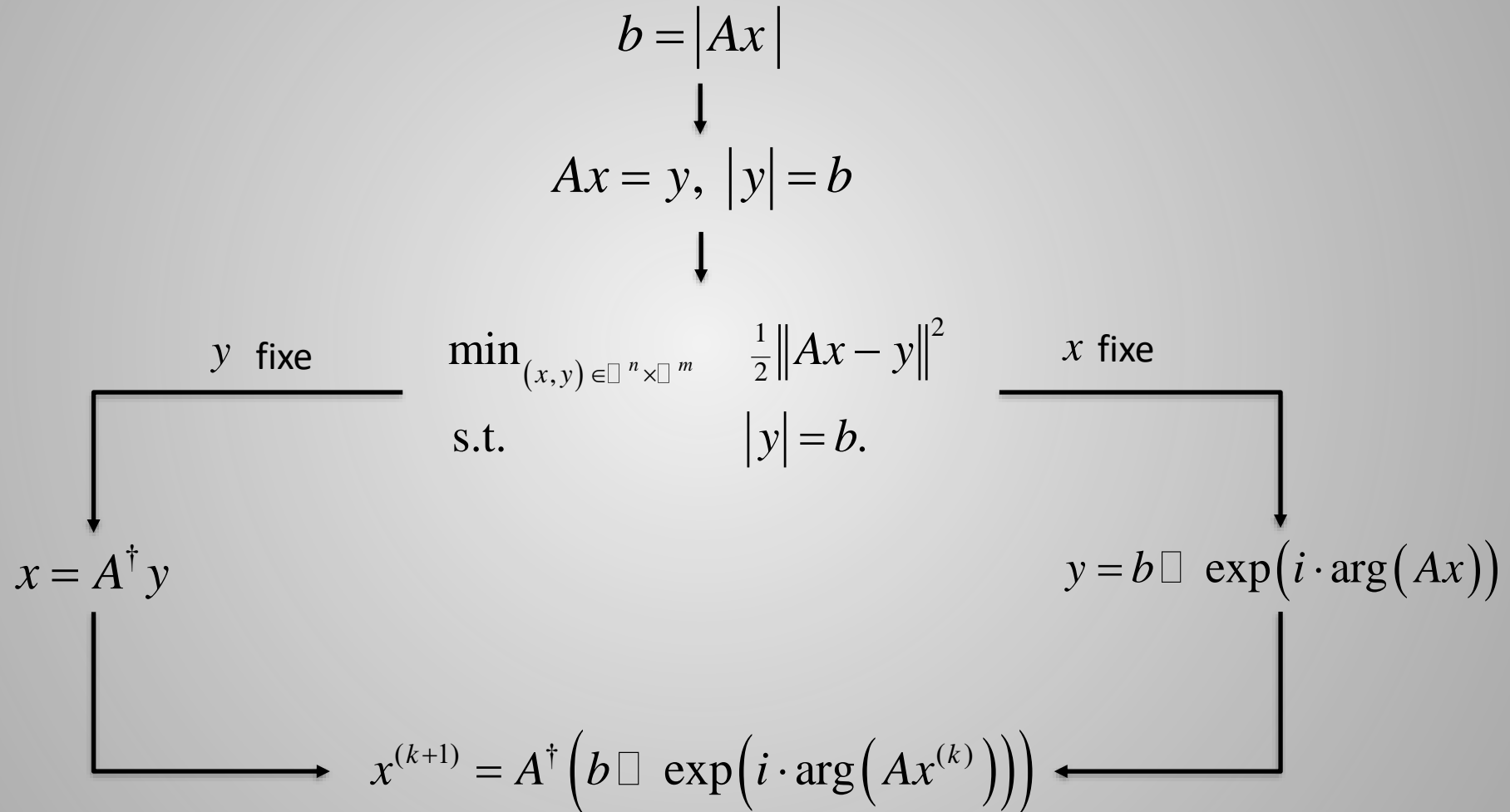


MO : Master Oscillator
 φ : Phase modulators
A : Amplifiers

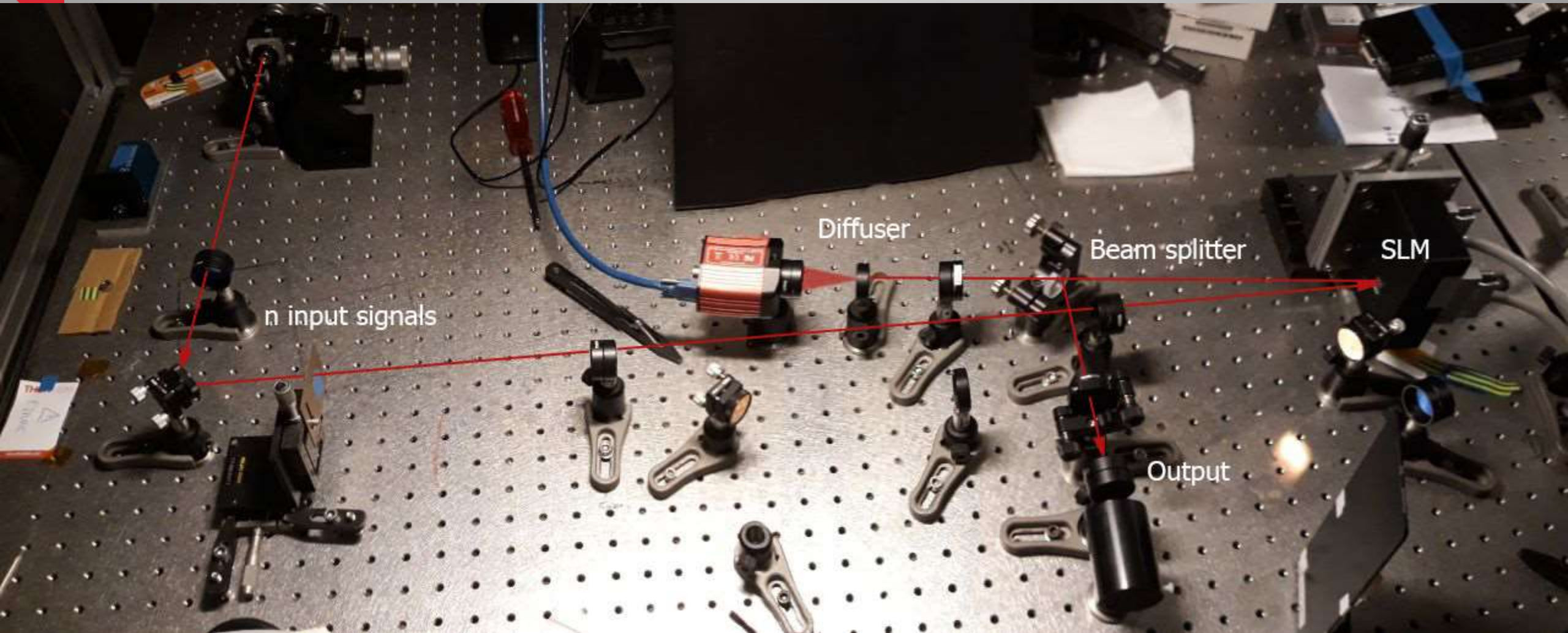
Phase correction algorithm



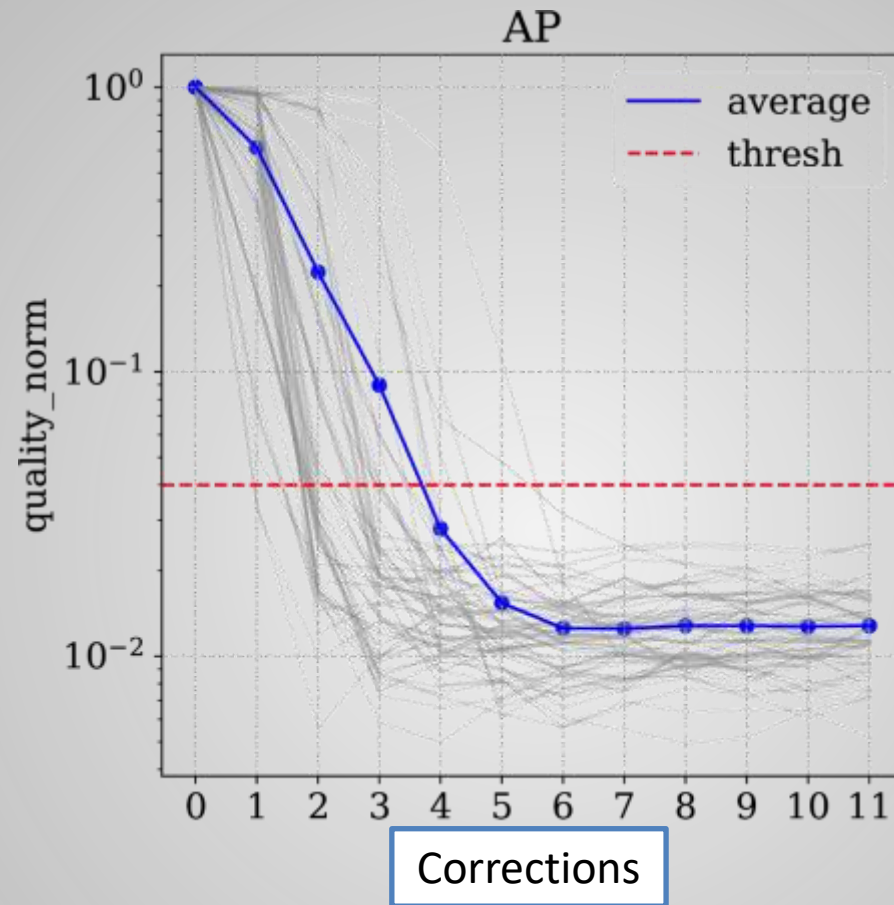
Phase retrieval algorithm : Alternating projections



Experimental setup



Experimental results



Quality function curves for the alternating projections algorithm for $n=16$ laser beams and $m=64$ intensity measurements