The acquisition of additional feedback loops optimizes and speeds up the response of Quorum Sensing

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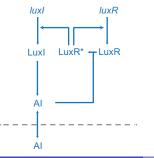
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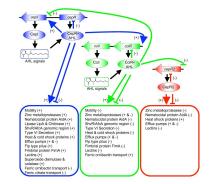
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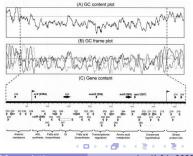
## Quorum sensing



It regulates bacteria biofilm formation and virulence





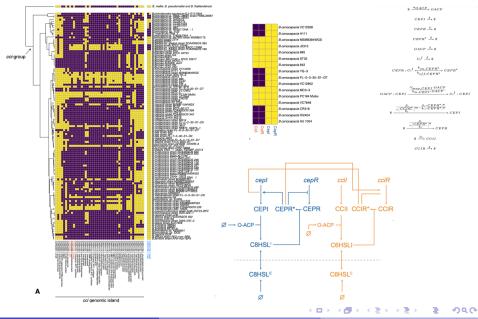


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## Phylogenetic distribution of QS regulation architectures



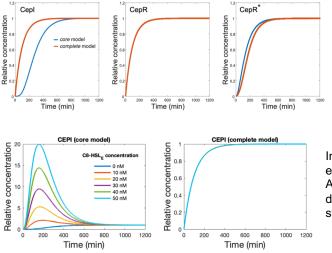
Marco Fondi

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## Benefits of a complete architecture



The response time is 69 and 264 minutes in the case of the complete and the core models, respectively

In the complete model, the external concentration of AI does not influence the dynamics of Cepl to its steady state level.

All simulations in



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