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Autore	Per E. Roland
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Sommario/riassunto	Neurons communicate by sending action potentials down their axons and release neurotransmitter at the synapses with target neurons in nearby or remote regions. Although we know the approximate connectivity of cortico-cortical axons in several species, this does not enable us to predict the communication dynamics. The cortico-cortical communication dynamics specify how the communication evolves in real time and cortical space ms by ms. Currently we are only beginning to appreciate this space-time dynamics from multielectrode recordings, imaging of Ca2+ transients and membrane voltage simultaneously over several areas during brain tasks, perception or preparation for behavior. The results from such experiments indeed challenge traditional ideas of cortico-cortical communications. The communication dynamics in these conditions differ somewhat from that present in steady states that are characterized as fix points or as oscillatory states (limit cycles). There are, however, realistic computational models of communications between several areas or the whole cortex, which have been able to express communication dynamics mimicking the experimentally obtained results during brain

tasks, such as perception and decision making.