

Long abstract of the paper
“The Strategic Timing of R&D Agreement”
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We present a model of endogenous formation of R&D agreements among firms in which also the timing of R&D investment is made endogenous. Our purpose is to bridge two usually separate streams of literature, the noncooperative formation of R&D alliances and the endogenous timing one. We introduce a new setup where firms express both their intention to form or not an alliance and the timing of their effort in R&D. This allows to assess the stability of research cartels against deviations occurring over time. It also makes it possible to analyze whether the possibility to cooperate in R&D over time can change the results of the existing R&D literature, in particular, those concerning the endogenous formation of R&D agreements. It is shown that, when both R&D spillovers and investment costs are sufficiently low, firms may find it difficult to maintain a stable agreement due to the strong incentive to invest non-cooperatively as leaders. In this case, the stability of an R&D agreement requires that the joint investment occurs at the initial stage, thus avoiding any delay. When instead spillovers are sufficiently high, cooperation in R&D represents a profitable option, although firms also have the incentive to sequence their investment over time. Finally when spillovers are asymmetric and knowledge mainly leaks from the leader to the follower, investing as follower becomes extremely profitable, making R&D alliances hard to sustain unless firms strategically delay their joint investment in R&D.