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Communicating with accelerated observers in Minkowski spacetime. (English summary)

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This paper presents calculations from an elementary problem in special relativity involving constant proper acceleration in $1 + 1$ dimensions. Given two observers A, B in relative motion, the problem is to determine the constraints on their ability to communicate in two cases: (i) A is stationary and B moves at constant proper acceleration with some initial separation; and (ii) both A and B move at the same constant proper acceleration with some initial separation. Communication is defined as the exchange of light signals in the sequence $A \rightarrow B \rightarrow A$ or $B \rightarrow A \rightarrow B$ (the conditions for which are generally not the same). The pedagogical value of the exercise is emphasized. Clear figures explain the geometry and motivate the results.

Reviewed by *Michael Ibison*

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