

Abstract Submitted
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Space Station Twin Paradox FLORENTIN SMARANDACHE, University of New Mexico — Two twins $T1$ and $T2$ synchronize their clocks at the same location L . Then $T2$ travels at relativistic uniform speed to a space station S , where he stops. So far, each twin sees the other one younger, since in each twin inertial reference frame the other twin is moving. The time dilation and length contraction are respectively the same in both inertial reference frames. (There is a forth symmetry.) Then twin $T2$ return from the space station S to the Earth at the location L with a relativistic speed. Again there is a back symmetry since each twin sees the other twin traveling, and again the time dilation and length contraction are respectively the same in both inertial reference frames. But, when $T2$ returns to earth he finds out that he is younger than $T1$, since $T2$ was traveling while $T1$ didn't. (Now there is an asymmetry!)

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