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Rotational Twin Paradox FLORENTIN SMARANDACHE, The University of New Mexico — Two twins settle on a massive spherical planet at a train station S. Let's consider that each twin has an accompanying clock, and the two clocks are synchronized. One twin T1 remains in the train station, while the other twin T2 travels at a uniform high speed with the train around the planet (on the big circle of the planet) until he gets back to the same train station S. Assume the planet is not rotating. Since the planet is massive, we can consider that on a very small part on its surface the train rail road is linear, so the train is in a linear uniform motion. The larger is the planet's radius the more the rail road approaches a linear trajectory. Because the GPS clocks are alleged to be built on the Theory of Relativity, one can consider the twin T2 train's circular trajectory alike the satellite's orbit. In addition, the gravitation is the same for the reference frames of T1 and T2. Each twin sees the other twin as traveling, therefore each twin finds the other one has aged slower than him. Thus herein we have a relativistic *symmetry*. When T2 returns to train station S, he finds out that he is younger than T1 (therefore *asymmetry*). Thus, one gets a contradiction between symmetry and asymmetry.

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