

Starting to continue

by Lorenzo Maccone

"Damn!" It hit him like a freight train. He fell to the ground spitting blood and tooth enamel. It felt bad this time. "This time, ha!" he smiled ruefully, feeling broken tooth on the inside of his lips. He laid there his tingling front to the cool floor for a while waiting for the pain to subside. "This is the start of a new life: hard as it is, I should try to make the best of it", he thought, and puked all over his blood-stained shirt.

It had all started innocently enough as a theoretical research into novel topologies of physical space. He had discovered that it is possible to bend space into a closed loop, and managed to actually build a machine that did it in his lab. He had the thrill entering in the same room he was leaving from the opposite side. Seeing his own back in front of him exiting the same room he was entering. Apart from the momentous theoretical consequences, he couldn't really see any true application of having a "periodic room". The usual problem of a theoretical physicist. He had played a few tricks on his friends, though. Good for a couple of laughs, but what else?

Then one fateful day some time ago (does this concept even make sense anymore?), he had realized that what he had done for space could also be done for time. Space and time are hardly two separate entities, the correct concept is the one of spacetime. Indeed it took quite a small modification of his machine to change its effect. And he'd switched it on without thinking too much about it.

Big error! He now realized: cyclical time is not as innocuous as cyclical space. Our perception of the flow of time arises from the increase of entropy, the "second law". So the only way to loop time is to reset the entropy to its previous value at some point, and he hadn't imagined that that transition would be so painful. He sighed deeply, groaning as his cracked ribs grated in his

chest. "How long is the time loop?", he asked himself. The searing diffused pain prevented him to focus well, but he knew he'd be hit again. And again, and again... Still, perhaps he could get to his machine and disable it before the next loop. He suddenly realized that if he failed this time, he'd fail every time: he'd be stuck in an infinite self-repeating loop. There was no way of knowing if this was his first loop (in which case there was hope of breaking out of it) or perhaps the billionth. He urgently pulled himself to his knees feeling bone shards digging in his right leg. Broken femur, he realized with a grimace. He desperately dragged himself on the floor to the cabinet where his machine stood, the humming of its electronics drawing him, a crazed firefly to a 100W lamp. His bloodied fingers grasped the power plug and

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Lorenzo Maccone is a theoretical physicist at the University of Pavia. His research has also touched upon the foundations of time.