Propositions accompanying the thesis

Dynamics and Radiation from Tidal Disruption Events

1. Stream self-crossing shocks induced by relativistic precession are an efficient mechanism for disc formation in tidal disruption events. However, compared to previous assumptions, this process might take longer and may also result in a more extended gas distribution.

   (**Chapter 2 and 3**)

2. Magnetic stresses can accelerate the disc formation process during tidal disruption events.

   (**Chapter 3**)

3. The debris stream produced by a tidal disruption event could efficiently mix with the surrounding medium, likely dimming the associated flare.

   (**Chapter 4**)

4. During a tidal disruption event, a strong stellar magnetic field can either result in the formation of a thick debris stream or a magnetically amplified remnant. The outcome depends on the amount of mass stripped from the star.

   (**Chapter 5**)

5. Although major advances have been made in the past few years, the predictive power of tidal disruption events is yet to be fully demonstrated.

6. The practice of physics is radically different for an astronomer and an engineer.

7. Self-learning helps build one's physical intuition.

8. Both relativistic precession and bike wheel precession lead to energy dissipation.

9. Tolerance for uncertainty is beneficial in academia.

10. Reproduction of existing works is a crucial part of the research process.

11. Order of magnitude estimates can be dangerous when used in real life situations.

12. If a cyclist does not feel any wind in the Netherlands, it is likely behind them.

Clément Bonnerot

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