

## Higher-order Post-Newtonian ADM Dynamics of Compact Binary Systems: a DJS “Tour de Force”

*Thursday, October 14, 2021 11:30 AM (30 minutes)*

I will present the role of Thibault Damour (‘D’ in ‘DJS’) and his colleagues (‘S’ and ‘J’ in ‘DJS’) in initiating, at the turn of the millennium, calculations of higher-order Post-Newtonian (PN) corrections to the equations of motion of compact binary systems. DJS derived for the first time complete and error-free dynamics of compact binary systems in the 3PN and 4PN orders, and to achieve this, they –also for the first time –successfully applied dimensional regularization to UV divergencies and linked the IR near-zone divergencies to the tail effects. I will conclude with a look at the future of PN computations performed in the traditional, i.e. “à la DJS”, manner

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