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Interactions of symplectic topology with singularity theory: Lagrangian pinwheels, Klein bottles and Milnor links of singularities

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It is very clear to me that the only reason I could complete this PhD thesis is because my friends and my family were always there for me, always helping me get out of my head and get back to the real world, with all of its pleasures and struggles.

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Finally, during the years that I have been in Leiden, we woke up twice to the news of a war starting. This created, for me and many other colleagues at the MI, a lot of inner conflict; how can we just continue our lives when there is a genocide committed so close to us? To what extent are we, as academics and employees of the university complicit to the war machine that only seems to keep growing? Most of the research in this thesis was carried out while thinking about war and its tragic consequences. I wish to dedicate this thesis to all the people who tried, and still try, to escape the wars which are waged onto them; and also, to the people who relentlessly fight to dismantle the ruthless war machine. *They will always have the right on their side.*

Curriculum Vitae

Nikolas Adaloglou was born in 21 of April 1997 in Athens, Greece, where he also grew up. He started studying mathematics at the University of Athens in 2015 and finished his studies in February 2019.

In September 2019 Nikolas moved to Zürich to pursue an MSc in pure mathematics in ETH, while supported with a scholarship by the Onassis Foundation. He wrote his thesis under the supervision of Dr. Will Merry, titled *Uniqueness of Lagrangians in $T^*\mathbb{R}P^2$* . He completed his studies in May 2021.

In September 2021, Nikolas moved to Leiden to start his PhD, under the supervision of Dr. Federica Pasquotto. The main mathematical result of his studies is the contents of this thesis.

In January 2026, Nikolas will move to Paris to start a post-doc at Sorbonne Université.

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