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Stochastic amplitude modulation of nonlinear dispersive waves

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Curriculum Vitae

Rik Willem Simon Westdorp was born in Roosendaal, the Netherlands, on September 28, 1997. From 2009 to 2015, he attended R.S.G. ‘t Rijks in Bergen op Zoom, where he completed the bilingual atheneum programme. In 2015, he moved to Delft to study Applied Physics and Applied Mathematics at Delft University of Technology. He completed both degrees *cum laude* in three years.

Alongside his studies, he was a member of the student rowing association D.S.R.V. ‘Laga’ and the study association W.I.S.V. ‘Christiaan Huygens’. At the latter, he joined various committees and served as full-time chair of the association during the 2018–2019 academic year.

In 2019, he began the two-year Master’s programme in Applied Mathematics, also at Delft University of Technology. During this time, he spent a semester taking courses at the National University of Singapore. In the final year of the programme, he completed an internship at CWI/QuSoft, after which he wrote his master’s thesis, *A Stochastic Parametrically-Forced NLS Equation*, under the supervision of Dr. Manuel Gnann. Rik graduated *cum laude* in the summer of 2021.

Shortly after graduation, he started as a PhD candidate at the Mathematical Institute of Leiden University, under the supervision of Prof. Hermen Jan Hupkes. There, he continued his research on nonlinear dispersive waves in the presence of noise. Over the course of the four-year programme, he presented his work at various conferences and seminars across Europe and the USA. He also co-organised the Dynamical Systems group seminar for two years, as well as the NDNS+ PhD Days in 2022.

Rik’s thesis, *Stochastic Amplitude Modulation of Nonlinear Dispersive Waves*, comprises four projects. Three of these focus on soliton propagation in the Korteweg–de Vries equation under (stochastic) forcing. The fourth project, on attenuation of solitary waves in the Fermi–Pasta–Ulam–Tsingou lattice, resulted from a collaboration with Prof. Doug Wright, whom he visited for six weeks at Drexel University in Philadelphia.