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Structure and substructure in the stellar halo of the Milky Way

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The work described in this thesis is part of the Netherlands' Research School for Astronomy (NOVA).

The cover shows an image of M54, a globular cluster of the Sagittarius dwarf galaxy (Credit:ESO/VLT, ID:eso1428a). The foreground displays an edited picture of Leiden's Observatory (Oude Sterrewacht). Both the foreground and the graphic design are copyright of the thesis author. The font is Charter Bold, by Bitstream Inc. (designer: Matthew Carter).

*To my parents, for opening my eyes to Science and the night sky;
to Jesús, for everything past, present and future.*

*Believe those who are seeking the truth;
doubt those who have found it.
(André Gide, 1952)*

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Abbreviations

BHB Blue Horizontal Branch

CMD Colour Magnitud Diagram

EBS Eastern Band Structure

MSTO Main Sequence TurnOff

Pal 5 Palomar 5

RC Red Clump

RGB Red Giant Branch

Sgr Sagittarius

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This thesis is based on observations made with ESO Telescopes at the La Silla Paranal Observatory as part of the KiDS public survey.

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Most of the data processing and analysis in this work has been carried out using Python and, in particular, the open source modules Scipy, Numpy, AstroAsciiData and Matplotlib. Topcat and Stilts have been used for occasional table manipulation.
