Preface Issue 3-2016

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Published online: 25 July 2016

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Egbert Brieskorn died on July 11, 2013 at the age of 77. Singularities of complex hypersurfaces are the focus of his scientific work, which the first author Gert-Martin Greuel of this obituary carefully reviews and explains in some detail. The second author Walter Purkert describes Brieskorn's commitment to investigating life and work of Felix Hausdorff, who was not only an outstanding mathematician but also a writer and philosopher. During the last 20 years Brieskorn dedicated a huge amount of his time and energy not only to editing the work of Hausdorff but also to collecting and analysing thousands of notes and letters in order to prepare a biography. More than 500 pages were already written by Brieskorn and the second author, who has been involved in the Hausdorff project for more than 20 years, will have to finish Hausdorff's biography. The authors also describe Brieskorn's ecological and political commitment.

In the preceding issue, Folkmar Bornemann explained how to solve some challenging numerical problems with a certain degree of precision, where floating point arithmetic has to be used. In the present issue, Siegfried Michael Rump outlines a theory how to establish rigorously with the help of the computer that an exact solution of a given problem exists within a specified range around a numerically calculated solution.

The first book review of the present issue is written by Wilhelm Stannat and concerns a monograph by Charles L. Epstein and Rafe Mazzeo on "Degenerate Diffusion Operators Arising in Population Biology." Michael Joswig then gives his view on Diane Maclagan's and Bernd Sturmfels' "Introduction to Tropical Geometry." Finally, Alain Valette summarises and reviews the book "Expansion in Finite Simple Groups of Lie Type" by Terence Tao.

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