



MathSys Centre for Doctoral Training
Viva Assessment Sheet

Module: MA934
Name of student: Aleksandra Tokawa
Date of viva: 07-12-2023

Name of assessor 1: Radu Cimpianu
Name of assessor 2: Gareth Alexander

Grade from assessor 1: 81

Grade from assessor 2: 80

Final grade awarded (after consultation with other assessor): 81

Is the final grade an average of the two grades given by the individual assessors? YES / NO

Notes

Questions covered: 3-4, 12, 16, 26

Q3-4: Matrix-matrix multiplication via Strassen, block form including computational complexity well written out, mergesort example for divide and conquer

Q12: $O(n)$ versus $O(\log n)$ setup nicely explained. Size properties and balancing also covered comprehensively when asked follow-up on best/worst case scenarios.

Q16: Starting from one-dimensional version with recurrence relation, strong derivation with good level of detail. Follow-up on robustness navigated excellently, with answer including useful points on initial conditions in higher dimensions.

Q26: General error setup worked out well, with comprehensive level of detail, use of Taylor, and discussion on explicit versus implicit approaches.

Assessor's signature:

Very well done!



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Grade from assessor 1: 81

Grade from assessor 2: 80

Final grade awarded (after consultation with other assessor): 80.5

Is the final grade an average of the two grades given by the individual assessors? YES / NO

Notes Questions covered: matrix multiplication, binary tree, Newton-Raphson, forward and backward Euler.

You gave good, technical answers to all questions asked that were generally clear and complete with little, or no, prompting. At the start you were also able to speed up your explanation when asked, which was very good. Overall, you demonstrated very good understanding of the course material, including technical aspects.

Assessor's signature: Gareth Alexander