

**Table 1. Detailed agreement between LLM and human labels for subareas, grouped by area**

| Area                                          | $\kappa$  | Size | % of agreement | area_conhecimento         |
|-----------------------------------------------|-----------|------|----------------|---------------------------|
| Algorithms and Data Structures                | 1.000000  | 9    | 1.000000       | Computational Foundations |
| Combinatorial Analysis                        | 1.000000  | 5    | 1.000000       | Mathematics               |
| Differential and Integral Calculus            | 1.000000  | 6    | 1.000000       | Mathematics               |
| Linear Algebra                                | 1.000000  | 4    | 1.000000       | Mathematics               |
| Databases                                     | 0.830189  | 9    | 0.888889       | Computational Technology  |
| Software Engineering                          | 0.777778  | 6    | 0.833333       | Computational Technology  |
| Operating Systems                             | 0.777778  | 6    | 0.833333       | Computational Foundations |
| Discrete Mathematics                          | 0.769231  | 6    | 0.833333       | Mathematics               |
| Analytical Geometry                           | 0.687500  | 5    | 0.800000       | Mathematics               |
| Probability and Statistics                    | 0.600000  | 4    | 0.750000       | Mathematics               |
| Formal Languages, Automata, and Computability | 0.583333  | 5    | 0.800000       | Computational Foundations |
| Image Processing                              | 0.571429  | 3    | 0.666667       | Computational Technology  |
| Distributed Systems                           | 0.400000  | 6    | 0.500000       | Computational Technology  |
| Graph Theory                                  | 0.400000  | 3    | 0.666667       | Computational Foundations |
| Computer Architecture and Organization        | 0.375000  | 5    | 0.600000       | Computational Foundations |
| Digital Circuits                              | 0.333333  | 2    | 0.500000       | Computational Foundations |
| Computer Networks                             | 0.333333  | 6    | 0.666667       | Computational Technology  |
| Compilers                                     | 0.285714  | 5    | 0.600000       | Computational Technology  |
| Programming Languages                         | 0.196429  | 9    | 0.444444       | Computational Foundations |
| File and Data Organization                    | 0.000000  | 3    | 0.333333       | Computational Foundations |
| Mathematical Logic                            | 0.000000  | 8    | 0.750000       | Mathematics               |
| Algorithm Analysis                            | -0.076923 | 7    | 0.142857       | Computational Foundations |
| Programming Techniques                        | -1.000000 | 2    | 0.000000       | Computational Foundations |
| Computer Graphics                             | NaN       | 3    | 1.000000       | Computational Technology  |
| Artificial Intelligence                       | NaN       | 3    | 1.000000       | Computational Technology  |