# FEDERAL STATE AUTONOMOUS EDUCATIONAL INSTITUTION OF HIGHER EDUCATION ITMO UNIVERSITY

#### Report

on the practical task No. 2

ALGORITHMS FOR UNCONSTRAINED NONLINEAR OPTIMIZATION.

DIRECT METHODS

 $\begin{array}{c} {\rm Performed~by} \\ {\rm Dmitry~Grigorev,~Maximilian~Golovach} \\ {\rm J4133c} \end{array}$ 

Accepted by Dr Petr Chunaev

- 1. Goal of the work
- 2. Formulation of the problem
- 3. Brief theoretical part
- 4. Results
- 5. Data structures and design techniques used in algorithms

#### 6. Conclusion

As has been seen from graphs, computations results surely illustrate theoretical behaviour of functions and algorithms in time. Besides, the functions and algorithms were implemented in Python language. Discussion for data structures and design techniques which were used in implementations is provided. The work goals were achieved.

### 7. Appendix

Algorithms implementation code is provided in [1].

## Bibliography

 $1. \ \, \text{Grigorev D., Golovach M. Code repository.} - \ \, \text{https://github.com/dmitry-grigorev/AlgoAnalysisDevelopment.} - 2022.$