From imaging algorithms to quantum methods Seminar

Report of Contributions

Contribution ID : **1** Type : **not specified**

GBS4EO: Gaussian Boson Sampling for Earth Observation

Monday, 25 May 2026 10:00 (60)

It is postulated that Gaussian Boson Sampling can be applied to efficiently sample highly connected subgraphs from complex graphs. We investigate how this feature can be employed to create algorithms for processing hyperspectral remote sensing data. We aim to test our algorithm on a gate-based quantum computer. To realize that, we approximately transform the problem of Gaussian Boson Sampling into a quantum program and attempt to execute it on 24 qubit superconducting quantum computer VLQ. The project is funded by ESA and is currently being implemented by KP Labs sp. z o.o., Jagiellonian University, and IT4Innovations@VSB.

Presenter(s) : GAWRON, Piotr (AstroCeNT / Nicolaus Copernicus Astronomical Center of the Polish Academy of Sciences)

Contribution ID : **2** Type : **not specified**

Discussion

Monday, 25 May 2026 11:00 (30)