

Contribution ID: 34

Type: **not specified**

## Muonic x-ray spectroscopy on Si

*Tuesday 29 July 2025 17:30 (40 minutes)*

The nuclear charge radii of silicon isotopes provide valuable input for searches for physics beyond the Standard model and for constraining the neutron equation of state. Therefore, laser spectroscopy on  $\{28-32\}\text{Si}$  has recently been performed and is planned for other isotopes in the near future. However, for extraction of the nuclear charge radii from laser spectroscopy, the mass and field shift parameters are needed, and currently, they are poorly known, and different models provide inconsistent trends. Hence, these parameters need to be re-evaluated, which can be achieved by using the King plot method combined with the determination of the nuclear charge radius of three silicon isotopes ( $\{28, 29, 30\}\text{Si}$ ) by using muonic x-ray spectroscopy. In this contribution, we report on preliminary results from the muonic x-ray spectroscopy campaign performed in 2024 at the Paul Scherrer Institute. The experiment employed the GIANT HPGe detector array, enabling extraction of the x-ray transitions.

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