



Contribution ID: 952 Contribution code: TUPL041

Type: **Poster Presentation**

## **Revision of optical klystron enhancement effects in self-amplified spontaneous emission free-electron lasers**

*Tuesday, 9 May 2023 16:30 (2 hours)*

We review the theory of optical klystrons with SASE FEL applications in mind. Previous theories miss terms in the power gain factor that cannot be neglected, and we illustrate differences between the previously known analytical expressions, new ones discussed here, and numerical calculations. We then consider the use of optical klystrons for electron energy-spread and radiation coherence-time diagnostics purposes.

### **Funding Agency**

### **Footnotes**

### **I have read and accept the Privacy Policy Statement**

Yes

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**Session Classification:** Tuesday Poster Session

**Track Classification:** MC2: Photon Sources and Electron Accelerators: MC2.A06: Free Electron Lasers