Contribution ID: **442**   Type: **Poster Presentation**

A Python-Flask Application for Modelling Surface Plasmon Resonance in Biosensors for Educational and Research use

We present a browser-based simulation tool for Surface Plasmon Resonance (SPR) sensor modelling, developed using Python and Flask. The tool allows users to visualize reflectance curves based on selected or custom parameters, incorporating Drude models for metals and experimentally validated refractive index equations for biological media such as plasma and blood. Users can generate real-time SPR curves for educational and research purposes, with interactive plotting and an embedded example from recent literature. The app is lightweight, accessible, and suited for under-resourced environments, promoting deeper engagement with SPR physics.

Apply for student award at which level:

None

Consent on use of personal information: Abstract Submission

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