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Thesis Defense: Mass Spec Ground Truth Data and JS-MS

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I. Presentation Style

I thought her presentation style was very good. I wished she had gone more into the background on Mass Spectrometry. The explanation of the JS-MS software was also well done and the videos were helpful, though could have been more thorough (maybe if she had opened the software herself and ran a quick tutorial of it). The motivation behind establishing ground truth data was also well done.

II. Intellectual Merit

The JS-MS's intellectual merit seems linked to its utility. It appears much more user-friendly than previous methods for labeling mass spec data. Perhaps she could've run usability tests if she wanted to formalize it.

For mass spec, there is clearly merit in establishing ground truth, as measuring the efficacy of algorithms is extremely difficult without an objective source to measure against. I do wish she had tests to check for or minimize human-error in the ground truth data.

III. Broader Impacts

The JS-MS suite will clearly have broader impacts as lowering the barrier to entry for physicists or other scientists without any background in computer science. This clearly has the potential accelerate the creation of more ground truth data, as well as the advancement of mass spectrometry in general.