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Working Group: Spectroscopy in Future Neutron Sources

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I. Direct Geometry: Chopper Spectrometers
1. A scattering flight-path built "around" the key components such as:
   - polarizers for incident and scattered beams
   - high magnetic field for samples
   - high pressure cells
   - high temperature furnaces
2. Full flexibility in detector configuration, consider movable detector module
3. Employment of large solid-angle position sensitive detector arrays

II. Inverse Geometry: Crystal-Analyzer Spectrometers
1. Exploration of the transmitted beams after the analyzers (stacked multiple analyzers)
2. Concurrent diffraction and inelastic scattering measurements
3. Useful for high-pressure and high-temperature sample environment

III. Pulsed-Source Spin Echo Spectrometers
Advantages: wide-Q overage, manipulation of pulsed magnetic fields
Need to develop a user-friendly machine