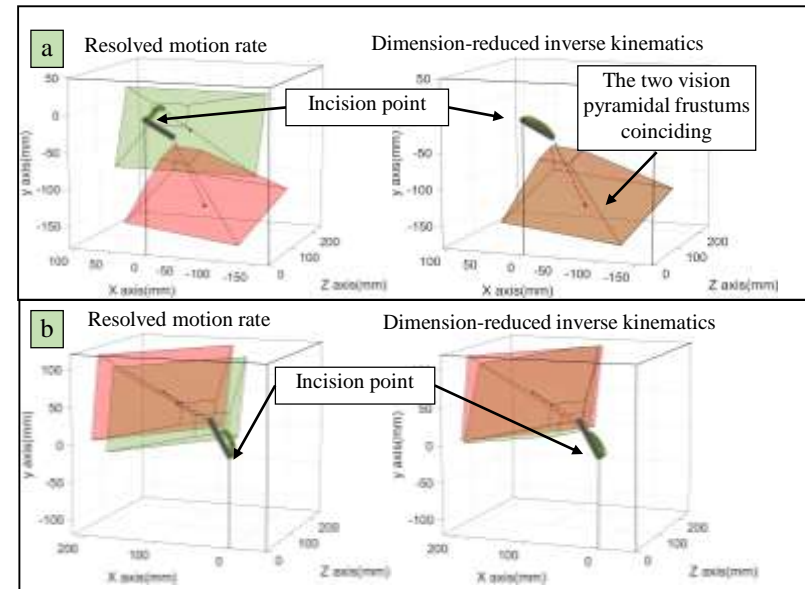


Inverse Kinematics Formulations of a Continuum Endoscope for a View Adjustment Similar to the da Vinci Endoscope

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- Two inverse kinematics formulations are investigated on a 6-DoF continuum endoscope to achieve view adjustment similar to the da Vinci endoscope.
- Dimension-reduced inverse kinematics formulation improves performances when resolved motion rate fails to converge.
- Dimension-reduced formulation has an 84.11% improvement compared with the resolved motion rate control.



Comparison results when the target visual point is (a) inside and (b) outside continuum endoscope's workspace