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A dual consistent summation-by-parts formulation for the linearized incompressible Navier-Stokes equations posed on deforming domains

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Highlights

- Boundedness and dual consistency of the linearized incompressible Navier-Stokes equations are studied.
- The equations are posed on time-dependent spatial domains.
- Summation-by-parts (SBP) operators together with weak implementation of boundary conditions using simultaneous approximation terms (SATs) are used.
- For simplicity and accuracy, the second order formulation is transformed to first order.
- Numerical experiments corroborate the theoretical statements.

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