1158-35-7   **Boya Liu*** (`boyaliu1129@gmail.com`), CA. *Increasing stability in a partial data inverse boundary value problem for biharmonic operators.*

We study the inverse boundary value problems of determining a potential in the Helmholtz type equation for the perturbed biharmonic operator from the knowledge of the partial Cauchy data set. Our geometric setting is that of a domain whose inaccessible portion of the boundary is contained in a hyperplane, and we are given the Cauchy data set on the complement. The uniqueness and logarithmic stability for this problem were established in Yang, Y., *Determining the first order perturbation of a bi-harmonic operator on bounded and unbounded domains from partial data*, J. Differential Equations **257** (2014), no. 10, 3607–3639 and Choudhury, A., Heck, H., *Stability of the inverse boundary value problem for the biharmonic operator: logarithmic estimates.* J. Inverse Ill-Posed Probl. **25** (2017), no. 2, 251–263 , respectively. We show, under mild regularity assumptions on the potentials, that the logarithmic stability estimate can be improved to the one of Hölder type, in the high frequency regime. (Received November 07, 2019)

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