

## **Incorporating noise in the inverse problem of the EIT complete electrode model**

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### **SUMMARY**

In this talk we address the resolution of the inverse problem of electrical impedance tomography. The direct problem is described by the complete electrode model, and we aim to reconstruct the map of conductivities inside the domain of interest. The novelty is that we use a Kohn-Vogelius-type cost function, instead of a classical least squares terms, and that we assume that the noise on the electrical measurements on the electrodes is modeled by a centered Gaussian law. The inverse problem that we solve consists in minimizing the expectation of the Kohn-Vogelius functional. We also present some preliminary numerical results

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