## Advanced Topics in Geometry A1 (MTH.B405)

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http://www.official.kotaroy.com/class/2025/geom-a1

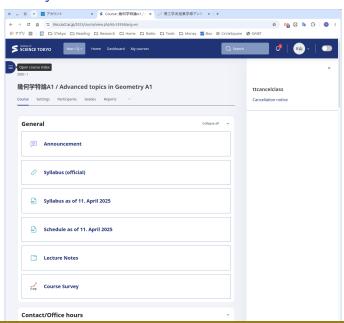
Institute of Science Tokyo

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## **Notice**

- Today is the final class of MTH.B405. Thank you for attending and cooperating the course.
- Please fill the form "Course Survey" in LMS.

## Course Survay



## Q and A

- Q: Do we have any example when  $(g_{ij},h_{ij})$  does not satisfy Gauss equation or Codazzi equation, and show that such surface does NOT exist?
- Q: What happens if two symmetric matrices  $\widehat{I}$  and  $\widehat{II}$  with components that are real-valued  $C^{\infty}$ -functions on U satisfy only Gauss equation? Or only Codazzi's? Can anything be said about the existence of regular surfaces p with fitting fundamental forms in such cases?