

MA 229/MA 235 - Lecture 26

IISc

Recap

- Orientation through top forms and charts.

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- Examples (including hypersurfaces).

Examples of orientable manifolds

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Non-examples

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Practically speaking...

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- The problem is that we have to use a partition-of-unity and such things are practically impossible to integrate explicitly!
- If we were to do it naively, we would have simply done $\int_{x^2+y^2 \leq 1} x^2 dx dy = \int_0^{2\pi} \int_0^1 r^2 \cos^2(\theta) r dr d\theta$.