(2) A connection is the information that identifies $F_q = F_p$.

In general, different $p$’s get you different isom.

We can use (iii), or (ii) equiv, to build a covariant derivative:

(usually): $d_A := d + A$.

(*) This is useful to get from (i) to (i):

(?) From (iii) to (i): you solve the ODE

$\dot{A} = 0$

Integrating version of a connection

Parallel transport

this identification via flow of lift is (i),

it’s called the parallel transport of $H$
From (iii) to (ii): given $b_A$ Hasanov,
call a section $s: \mathcal{E} \to B$ flat if

$$d_A s = 0$$

$H$ is given by $t.g.$ space to graphs of flat sections.