

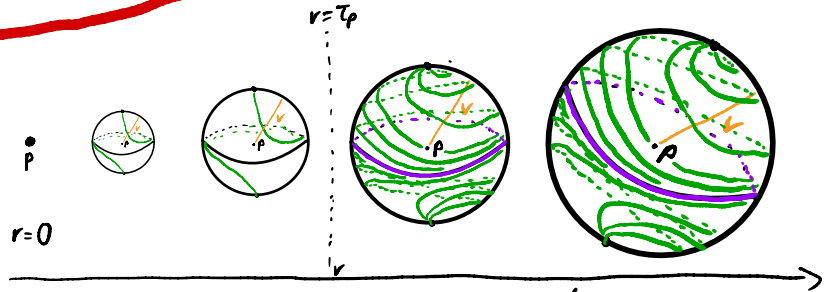
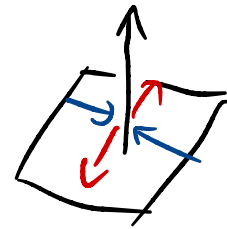
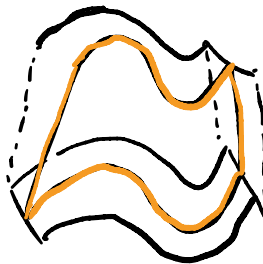
Willi

Kepplinger

Metric contact stuff

use Riemannian Geometry to understand contact structures

e.g.:  tight



cool result: Contact sphere Thm

classical & nice:  $(M^n, g)$ ,  $\frac{1}{4} < \sec_g \leq 1$

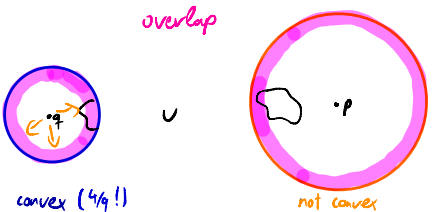
$$\Rightarrow \begin{matrix} \tilde{M} \cong S^n \\ \downarrow \\ M \end{matrix}$$

"topological sphere Thm"

Etnyre, Komandarczyk, Marsat:  $(M^3, J, g)$ ,  $(J, g)$  compatible in some sense

$$\frac{1}{4} < \sec_g \leq 1$$

$$\Rightarrow \begin{matrix} (\tilde{M}, \tilde{J}) \cong (S^3, J_{st}) \\ \downarrow \\ (M, J) \end{matrix}$$



Ideal future development:

contact versions of  
geometric flows

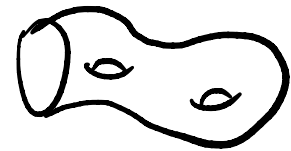
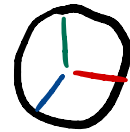
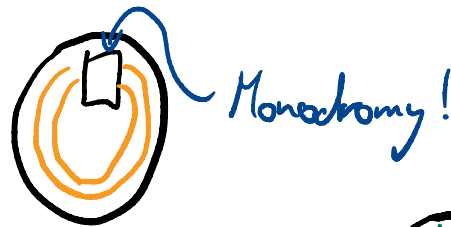
Other interests:

•) Any other contact - & 2/3/4 - mfd stuff

•) Morse - 2 functions

$M^4 \rightarrow D^2$  : Trisections

$M^3 \rightarrow D^2$  : OBDs



•) Trisections

