$$M^6 \text{ hol SU(3)}: \quad \begin{cases} \omega & 2 \text{ form} \\ \varrho & 3 \text{ form} \end{cases}$$

$$M^7 \text{ hol } G_2: \quad \varphi \text{ 3 form } / d\varphi = \overset{*}{d}\varphi = 0$$

$$M^8 \text{ hol Spin(7)}: \quad \varphi \text{ 4 form } / d\varphi = 0$$

$$\text{oriented hypersurfaces } M_- \sqsubset M$$

$$M^6 \text{ hol SU(3)} \implies M^6_-$$

$$M^7 \text{ hol } G_2 \implies M^7_- \text{ half-flat hol SU(3)}: \quad d\varrho = 0: \quad d\omega \wedge \omega = 0$$

$$M^8 \text{ hol Spin(7)} \implies M^8_- \text{ cocalibrated hol } G_2: \quad \overset{*}{d}\varphi = 0$$