

Hilfssatz \Rightarrow $M \in \mathcal{M}(H)$ ist ein Hilfsraum von H

$$S: M(H) \rightarrow M(H)$$

$$\text{Bild } M \mapsto U(M) = \{U\varphi \mid \varphi \in M\}$$

$$\dim H > 2$$

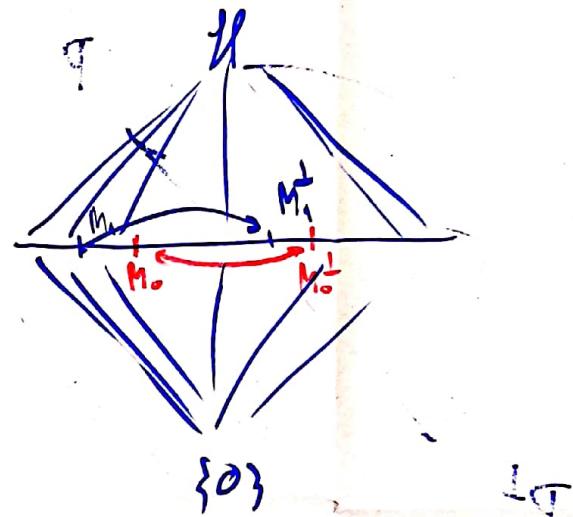
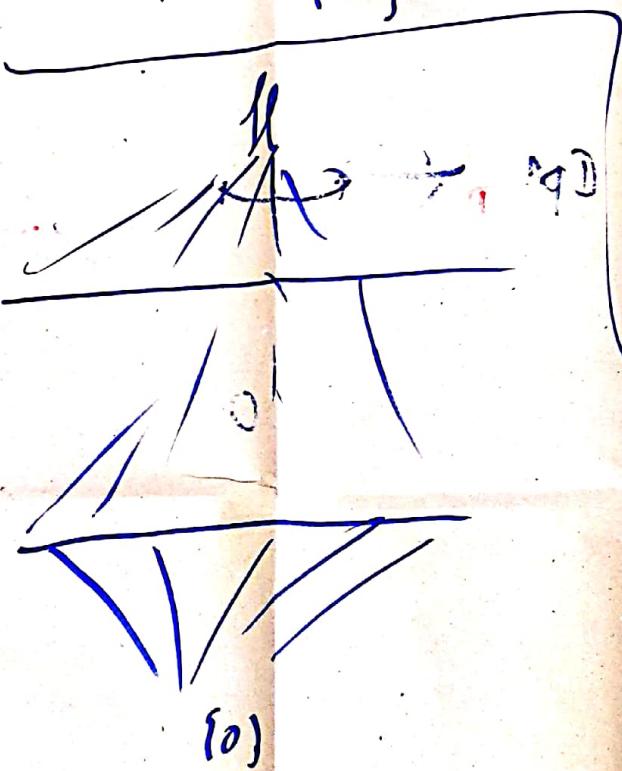
$$M_0 \in M(H)$$

$$S: M_0 \mapsto M_0^\perp \quad \text{Nur Alter T. SKAL. SE. FORD:}$$

$$M \neq M^\perp \rightarrow M \subset M^\perp \quad \begin{aligned} \langle U\varphi | U\psi \rangle &= (\varphi | \psi) \\ &= (\varphi | \psi)^* \end{aligned}$$

$$H \xrightarrow{\text{durch}} H$$

$$\{0\} \mapsto \{0\}$$



H 28 $\varphi \in H \rightarrow P_\varphi \quad P_i(H) \rightarrow \{0,1\}$
 $P \mapsto (\varphi | P \varphi)$

GLEASON: H SZEPE. $\dim H > 2$

Nézik KÖRZÜMÉNY

$$\sum_{n \in \mathbb{N}} \lambda_n P_n = \lambda_n > 0$$

$$\sum_{n \in \mathbb{N}} \lambda_n = 1$$

$\dim H = 2 \Leftrightarrow \forall P_0 \in P_1(H) \quad \dim(\text{Ran } P_0) = 1$

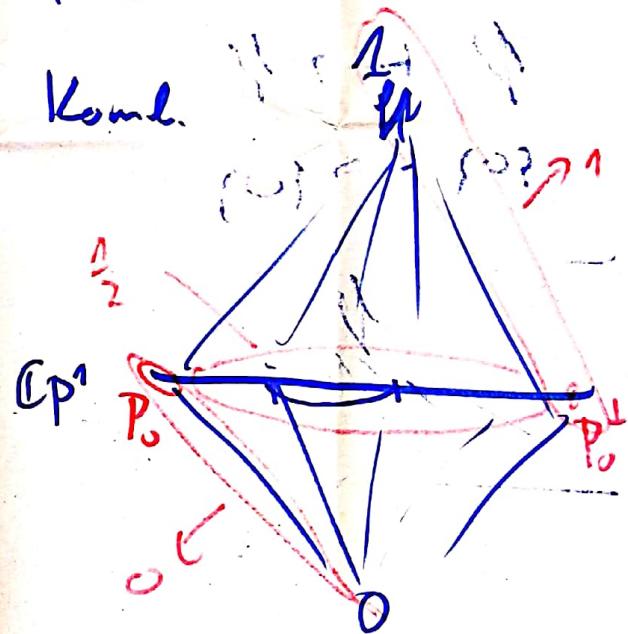
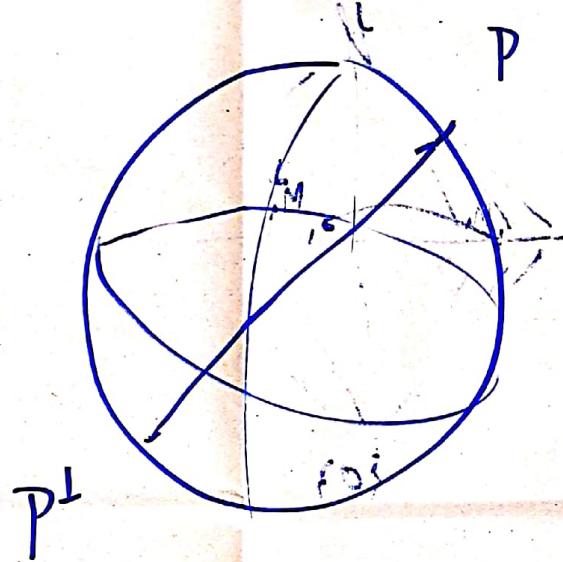
$$P(0) = \text{diag} \cdot P(P_0) = 0$$

$$P(I) = 1 \quad P(P_0^\perp) = 1$$

$$P(P_0) = \frac{1}{2}$$

Kell: P minták \checkmark

P nem 6-ham komb.



$$\text{Tr}(A) = \sum_{n \in \mathbb{N}} \langle \varphi_n | A | \varphi_n \rangle \quad |\varphi_n\rangle \text{ O.N.B.}$$

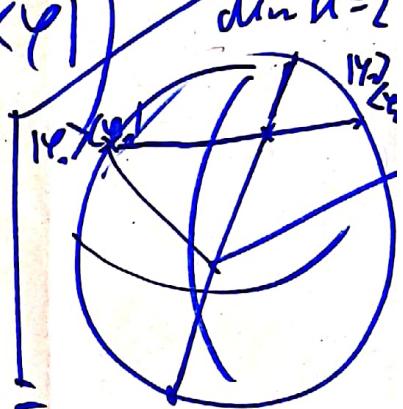
$$|\psi\rangle = \sum_n |\varphi_n\rangle \times \langle \varphi_n | \psi \rangle = \underbrace{\left[\sum_n |\varphi_n\rangle \times \langle \varphi_n | \right]}_{\langle \psi |} |\psi\rangle \quad \text{PARSEVAL}$$

$$\langle \psi | \psi \rangle = \sum_n (\psi | \varphi_n \rangle \langle \varphi_n | \psi) \quad \text{I}$$

$$\forall \rho \in \mathbb{R}: P_\rho(P) = \langle \psi | \tilde{P}^\dagger \psi \rangle = \sum_n (\psi | \varphi_n \rangle \langle \varphi_n | P | \psi \rangle)$$

$$\sum_n \langle \varphi_n | [P | \psi \rangle \langle \psi |] \varphi_n \rangle = \text{Tr}(P |\psi \rangle \langle \psi|) \quad \text{dim H=2}$$

$$W = (\cup \sum_{n \in \mathbb{N}} \lambda_n |\varphi_n\rangle \langle \varphi_n|)$$



$$\text{Tr}(W) = \sum_m \langle \varphi_m | \sum_{n \in \mathbb{N}} \lambda_n |\varphi_n\rangle \langle \varphi_n | \varphi_m \rangle =$$

$$= \sum_{n \in \mathbb{N}} \sum_{m \in \mathbb{N}} \lambda_n \langle \varphi_n | \langle \varphi_m | \varphi_n \rangle \langle \varphi_n | \varphi_m \rangle =$$

$$= \sum_n \lambda_n \langle \varphi_n | \left[\sum_m |\varphi_m\rangle \langle \varphi_m| \right] \varphi_n \rangle = \sum_n \lambda_n = 1$$

$$P(P) = \sum_n \lambda_n P_{\varphi_n}(P) = \sum_n \lambda_n \langle \varphi_n | P | \varphi_n \rangle =$$

$$= \sum_n \sum_m \langle \varphi_m | [P | \varphi_n \rangle \langle \varphi_n |] | \varphi_m \rangle =$$

$$= \sum_m \langle \varphi_m | \left[P \underbrace{\left[\sum_n \lambda_n |\varphi_n\rangle \langle \varphi_n| \right]}_W \right] | \varphi_m \rangle = \text{Tr} P W$$

A30

$$g(x) = \left(x^2 + 1 \right)^2 = x^4 + 2x^2 + 1$$

$$T \times S \times \frac{S}{T} = T^2 = N$$

$$\text{using } (t_1, q, \bar{q}) \mapsto \frac{m_{q\bar{q}}}{2} = 25$$

~~What's the best way to do this?~~

$$K_{\alpha}: \mathbb{F} \rightarrow \mathbb{F} \times V(t)$$

Ves

the IV 1901 ots

P.S.

x, x \rightarrow $F(x \vee y) \rightarrow$

~~17~~ ~~18~~ ~~19~~ ~~20~~ ~~21~~ ~~22~~ ~~23~~ ~~24~~ ~~25~~ ~~26~~ ~~27~~ ~~28~~ ~~29~~ ~~30~~ ~~31~~ ~~32~~

N. (a) L. 100

N (n) L (e.g.)

1949-10-12

~~PC DC~~ /S/

$\frac{1}{2} \left(\frac{\partial^2 f}{\partial x^2} + \frac{\partial^2 f}{\partial y^2} \right)$

$$q - t q = \prod_{i=1}^n (x - a_i) - T(x - a_i)$$

W. M. H. - 1900

$$\Pi_m(x-a) = t(x-a)(x-u)$$

M

$\overline{F} \otimes \overline{\overline{F}}$