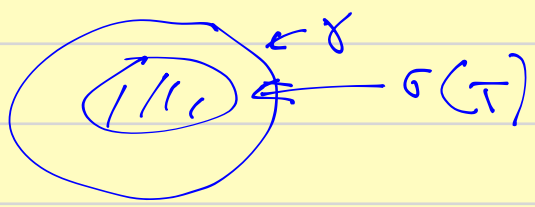
Dunford calculus.

- Reminder: analytic operator functions

- $T \in \mathcal{L}(\mathcal{H}) \to \mathcal{F}(T) = \{$functions analytic in a neighbourhood of $\sigma(T)\}$

- $f \in \mathcal{F}(T) \Rightarrow f(T) := \frac{1}{2i\pi} \int_\gamma f(\xi) R(\xi, T)\, d\xi$



- Correctness of definition

- Addition, multiplication

- Spectral mapping theorem

- Exercise. $\sigma(T) = \overline{\sigma(T^*)}$;
  - $f \in \mathcal{F}(T) \Rightarrow f(T)^* = g(T^*)$ where $g(\xi) = \overline{f(\bar{\xi})}$.

- Composition theorem