

# Unbounded operators: functional calculus, generators and perturbations

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## **Abstract**

Let  $A$  be a closed (unbounded, densely defined) operator on a complex Banach space, with suitable spectral properties. We shall discuss:

1. Functional calculus, defining  $f(A)$  for suitable bounded holomorphic functions  $f$ .
2. Generation of semigroups of bounded operators  $e^{-tA}$ .
3. Perturbations preserving either of the above properties.