

Dec 22, 2022

① SCV Intro. (3 lectures?)

- $\bar{\partial}$, Holomorphic functions, power series, Cauchy's formula.
- Pseudocconvexity, Plurisubharmonicity, domains of holomorphy.
- Hartogs phenomenon, No Riemann Mapping.

② Basic CR Geometry. (3-5 lectures?)

- Real hypersurfaces in \mathbb{C}^n (CR manifolds?)
 - CR vector fields, functions
 - Levi form, finite type, minimality.
 - Holomorphic extension.
 - Abstract CR structures of hypersurface ^{type}
 - Levi form, finite type revisited.
 - CR maps
 - Baouendi-Treves Approximation Theorem
- (- Newlander-Nirenberg?)

③ Leit nondegenerate CR mflds.

- pseudohermitian structures
- Embeddability / nonembeddability.
- CR Embedding Thm ??