

Residual plurisubharmonic functions

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For any negative psh function on a bounded domain of \mathbb{C}^n , we construct a psh function determined by the asymptotical behavior of the given function near its singularity points, both inside the domain and on its boundary. We study properties of such residual functions and their relations to asymptotic psh rooftops. The considerations are motivated by a problem on when two given psh functions can be connected by a psh geodesic.