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Albert Boggess* (boggess@asu.edu), **Roman Dwilewicz** and **Zbigniew Slodkowski**.

Hartog's Theorems on Unbounded Domains in C^n . Preliminary report.

We consider the question of when CR functions on the boundary of an unbounded domain in C^n extend to holomorphic functions in the interior. An easy necessary condition is that the domain not contain any complex variety of codimension one that is given as the zero set of a holomorphic function which is smooth up to the boundary. This condition is also sufficient in domains which are Reinhardt and "tube-like" along a complex fiber. We also prove a CR extension result which generalizes Bochner's tube-theorem to so-called "wide tubes" that "flare-out" at infinity at a prescribed rate of growth. (Received August 15, 2013)