

Oh, Chun-Young

A simple note on Hartogs-Laurent domain. (English) [Zbl 1186.31001](#)
Honam Math. J. 30, No. 2, 359-362 (2008).

Let $u : \mathbb{C} \rightarrow \mathbb{R}$ be a continuous subharmonic function satisfying $\lim_{|z| \rightarrow \infty} u(z) = \infty$. The author proves that the domain $0 < |w|e^{u(z)} < 1$ in \mathbb{C}^2 is taut. Contrary to an assertion in this paper, the continuity assumption cannot be replaced with the weaker condition that u be bounded below. The author also studies questions about extending holomorphic maps from the punctured unit disk into a Hartogs-Laurent domain $e^{\psi(z)} < |w| < e^{-\phi(z)}$ where ϕ and ψ are plurisubharmonic functions satisfying $\phi + \psi < 0$ on a domain G in \mathbb{C}^n .

Reviewer: [Theodore J. Barth \(Riverside\)](#)

MSC:

[31A05](#) Harmonic, subharmonic, superharmonic functions in two dimensions
[32V05](#) CR structures, CR operators, and generalizations

Keywords:

[E*-extension property](#); [Hartogs-Laurent domain](#); [taut domain](#)

Full Text: [DOI](#)