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Thinness and non-tangential limit associated to coupled PDE

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Abstract: In this paper, we study the reduit, the thinness and the non-tangential limit associated to a harmonic structure given by coupled partial differential equations. In particular, we obtain such results for biharmonic equation (i.e. $\Delta^2\varphi = 0$) and equations of $\Delta^2\varphi = \varphi$ type.

Keywords: thinness, non-tangential limit, Martin boundary, biharmonic functions, coupled partial differential equations

AMS Subject Classification: Primary 31C35; Secondary 31B30, 31B10, 60J50

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