



Breeze scaling: from large-scale land/sea breeze to meso-scale inland breeze

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The sea/land breezes and inland breezes have in common the "breeze" appellation but are essentially different. The land/sea-breezes horizontal extent exceeds 100 km with the Coriolis effect dominating its dynamics. Conversely, the inland breezes are confined between the alternating patches of cold and warm surface temperature, on horizontal ranges never exceeding few kilometers, with negligible Coriolis effect. Both the land/sea-breeze and inland breeze systems are embedded within the atmospheric boundary layer. So despite their perceptive resemblance, their physics differ and this paper attempts to determine the parameters controlling the bifurcation between the processes driving the large-scale land/sea-breezes and those driving inland breezes.