سیویلیکا - ناشر تخصصی مقالات کنفرانس ها و ژورنال ها
گواهی ثبت مقاله در سیویلیکا
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عنوان مقاله:

SECONDARY CIRCULATION INDUCED BY FLOW CURVATURE AROUND CURVED SHAPE BREAKWATERS

محل انتشار:

چهارمین کنفرانس بین المللی سواحل و بنادر و سازه های دریایی (سال: 1379)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

Previous studies have shown that flow curvature in river bends generates a secondary circulation in the plane normal to the mean flow direction. A similar circulation pattern is shown to exist in oceanic situations when flows are subject to curvature, mainly due to interaction with topographic features. However, it is shown that that due to differences between oceanic conditions and river bends, theory and prediction methods based on the assumptions for river bends are invalid for oceanic flows.This paper focuses on the generation of secondary circulation due to flow curvature in coastal flows. Simple scaling of different terms in the equation of motion, that includes both the effects of flow curvature and the Coriolis is utilized. On this basis, parameters that determine different flow regimes,are identified. The maximum strength of the secondary flow is derived for each flow regime and is verified using a three-dimensional (3-D) numerical model applied to an idealized island. It is also shown that the flow around curved shape breakwaters .may generate the same secondary circulation, which can be estimated using this method

کلمات کلیدی:

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