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The dynamics of spiral tip adjacent to inhomogeneity in cardiac tissue

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Based on a modified 2D cardiac tissue model, the interaction of inhomogeneity on the nearby rigidly rotating spiral wave is numerically studied.

The adjacent area of the inhomogeneity is divided to two areas, when the initial rotating center of the spiral tip is located in the two areas, the spiral tip will be attracted and anchor on the inhomogeneity finally, or be repulsed away.

The width of the area is significantly dependent on the intensity and size of the inhomogeneity.