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Franziska Hinkelmann, Beverly Delidow and Reinhard Laubenbacher*
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Experimental evidence suggests that retinoic acid redirects canonical WNT signaling to the PCP pathway in early stage melanoma cells, thereby affecting cell division. More aggressive melanoma cell lines are not responsive to retinoic acid. The question then arises how such a switch in signaling could be affected in these unresponsive cell lines. This talk will discuss a time- and state-discrete mathematical model of the two pathways and its use in identifying potential effectors of a switching mechanism. (Received January 04, 2012)