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(54) **GRADIENT DROPPING FOR FEDERATED LEARNING**

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(57) **ABSTRACT**

A UE may identify a plurality of local model update elements associated with an updated local machine learning model. The updated local machine learning model may have been generated based on a global machine learning model received from a base station and a local dataset. The UE may identify one or more local model update elements of the plurality of local model update elements for update element dropping based on at least one of a channel gain, a PAPR specification, an RF emission specification, or an RF condition. The UE may transmit, to the base station over a multiple access channel via analog signaling, at least some local model update elements of the plurality of local model update elements based on dropping of the identified one or more local model update elements.