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(54) **ADAPTIVE SENSOR POSITION DETERMINATION FOR MULTIPLE MOBILE SENSORS**

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(57) **ABSTRACT**

Techniques are provided for adaptive sensor position determination for multiple mobile sensors. One method comprises obtaining a spatio-temporal representation of sensor measurements, from multiple mobile sensors, wherein the spatio-temporal representation comprises multiple layers each corresponding to a different point in time, wherein a given layer comprises multiple positions, and wherein each position in the given layer corresponds to a possible location for at least one of the multiple mobile sensors in an environment; applying the spatio-temporal representation to an environment state prediction model that generates a prediction of at least one future sensor measurement value for multiple positions in the spatio-temporal representation; applying the predictions of the at least one future sensor measurement value to a sensor position determination model that determines a new position for each of one or more of the multiple mobile sensors; and initiating a movement of the one or more of the multiple mobile sensors to the new position.