### **✅ Most Relevant Tutorials**

1. **RGB-D Handheld Mapping**
   * **Why**: Your RealSense D435i is an RGB-D camera, which is directly supported by this tutorial.
   * **Use Case**: This will help you understand how to perform SLAM using only the D435i.
2. **Setup RTAB-Map on Your Robot!**
   * **Why**: Since you’re using both an RGB-D camera and a LiDAR, this tutorial helps integrate multiple sensors.
   * **Use Case**: Essential if you're mounting these sensors on a robot and want to combine odometry, visual data, and LiDAR.
3. **Advanced Parameter Tuning**
   * **Why**: When combining RGB-D and LiDAR, performance tuning is important for accuracy and efficiency.
   * **Use Case**: Optimize SLAM performance once basic setup is complete.

### **🚧 Potentially Useful (Depending on Deployment)**

1. **Remote Mapping**
   * **Why**: Useful if the compute-heavy SLAM processing is done on a separate computer.
   * **Use Case**: Consider this if your robot is lightweight and offloads processing.
2. **Stereo Outdoor Mapping / Navigation**
   * **Why**: Not directly applicable since you're not using stereo, but helpful if you're working in **outdoor environments** and want ideas on **sensor fusion/navigation**.
   * **Use Case**: You can extract concepts related to environment challenges and trajectory planning.

### **❌ Not Directly Applicable**

* **Stereo Handheld Mapping**
* **Mapping and Navigation with Turtlebot**
* **Tango ROS Streamer**
* **Wifi Signal Strength Mapping**

These are either tied to specific hardware (e.g., stereo cameras, Turtlebot, Tango) or niche use cases not related to your current SLAM goal.

### **Suggested Learning Path**

1. **Start with "RGB-D Handheld Mapping"** to understand how to get RTAB-Map working with the D435i.
2. Then go to **"Setup RTAB-Map on Your Robot!"** to integrate LiDAR and configure multi-sensor input.
3. Use **"Advanced Parameter Tuning"** to refine performance and improve map quality.
4. (Optional) Use **"Remote Mapping"** if you're offloading compute tasks.