The paper you provided is titled "Sensor-based Activity Recognition using Deep Learning: A Comparative Study" by Imen Trabelsi, Jules Françoise, and Yacine Bellik. The authors are affiliated with Université Paris-Saclay and CNRS, located in Orsay, France. The paper was presented at the 8th International Conference on Movement and Computing (MOCO'22) held in June 2022 in Chicago, IL, USA.

The abstract of the paper highlights the increased interest in sensor-based activity recognition due to the widespread availability of inertial sensors in smartphones and connected objects. The authors discuss the challenges of recognizing human actions from inertial data, particularly due to complex movements and inter-individual differences. They explore the application of deep neural networks for activity recognition and evaluate various deep learning architectures using a single inertial measurement unit. The study combines data from six publicly available datasets and identifies the best performance achieved by an approach combining the continuous wavelet transform and 2D convolutional neural networks.

The paper also includes CCS concepts related to human-centered computing and computing methodologies, specifically gestural input and machine learning. The keywords associated with the paper include human activity recognition, inertial sensors, movement computing, continuous wavelet transform, deep learning, and convolutional neural networks.

The paper provides an ACM reference format, including the authors' names, the year of publication (2022), the title of the conference, the conference dates and location, the publisher (ACM), the city of publication (New York, NY, USA), the number of pages (8), and the DOI (Digital Object Identifier).

The introduction of the paper emphasizes the importance of computational movement modeling in the Movement and Computing community. It discusses the advancements in movement analysis frameworks, signal processing methods, and the application of machine learning to movement analysis and recognition. The authors focus on the use of deep neural networks for learning representations of movement from inertial sensor data, specifically in the context of sensor-based Human Activity Recognition (HAR).

The paper mentions the wide range of applications for sensor-based HAR, such as health and well-being, physical activity monitoring, and surveillance. Traditional approaches to HAR involve classic machine-learning models applied to handcrafted features. The authors highlight the success of deep learning methods, including convolutional and recurrent neural networks, in sensor-based HAR. They propose exploring the potential of time-frequency representations using the continuous wavelet transform combined with convolutional neural networks.

The contributions of the paper are twofold. First, the authors propose a more challenging task by combining activities from different datasets, introducing variability in data collection protocols and sensor placement. Second, they present a new method that utilizes the continuous wavelet transform and a 2D convolutional neural network to analyze accelerometer and gyroscope signals and achieve competitive accuracies in HAR.

The paper includes sections on related work, proposed methods and metrics, experimental setup and results, a discussion of the obtained results, and a conclusion with suggestions for future improvements.

Please note that the content you provided is truncated, and the complete paper may contain further details and findings related to sensor-based activity recognition using deep learning.