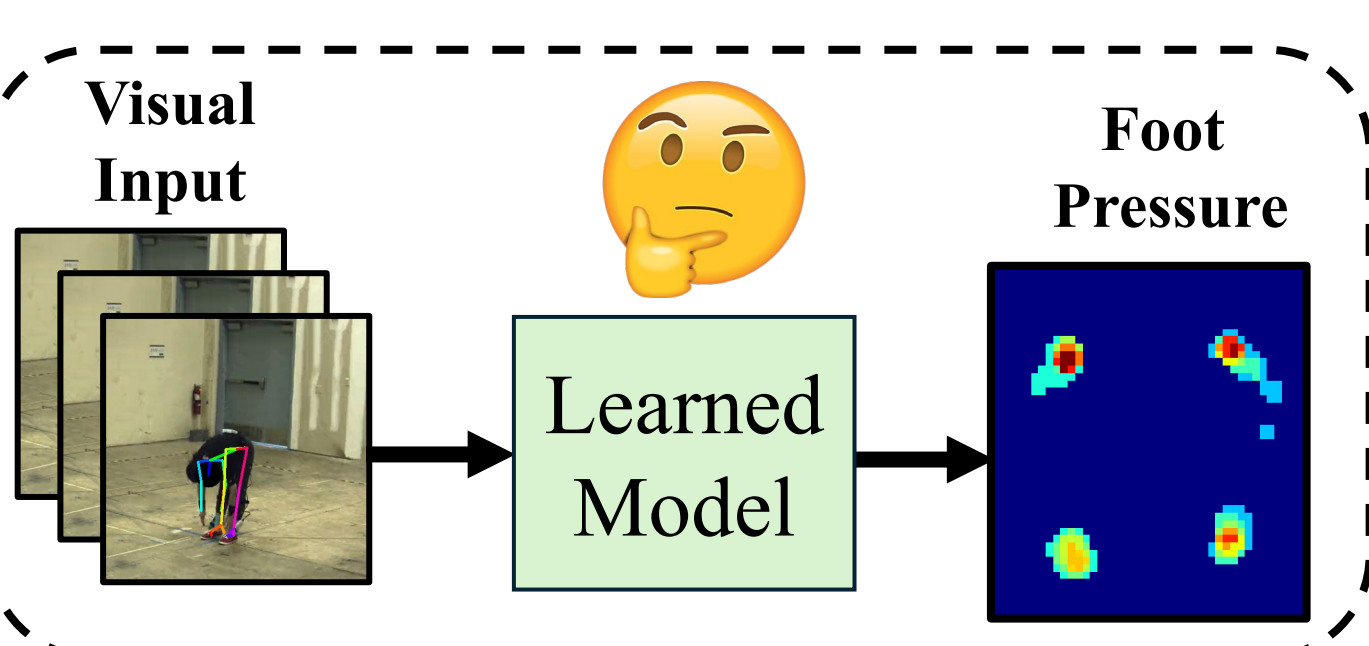


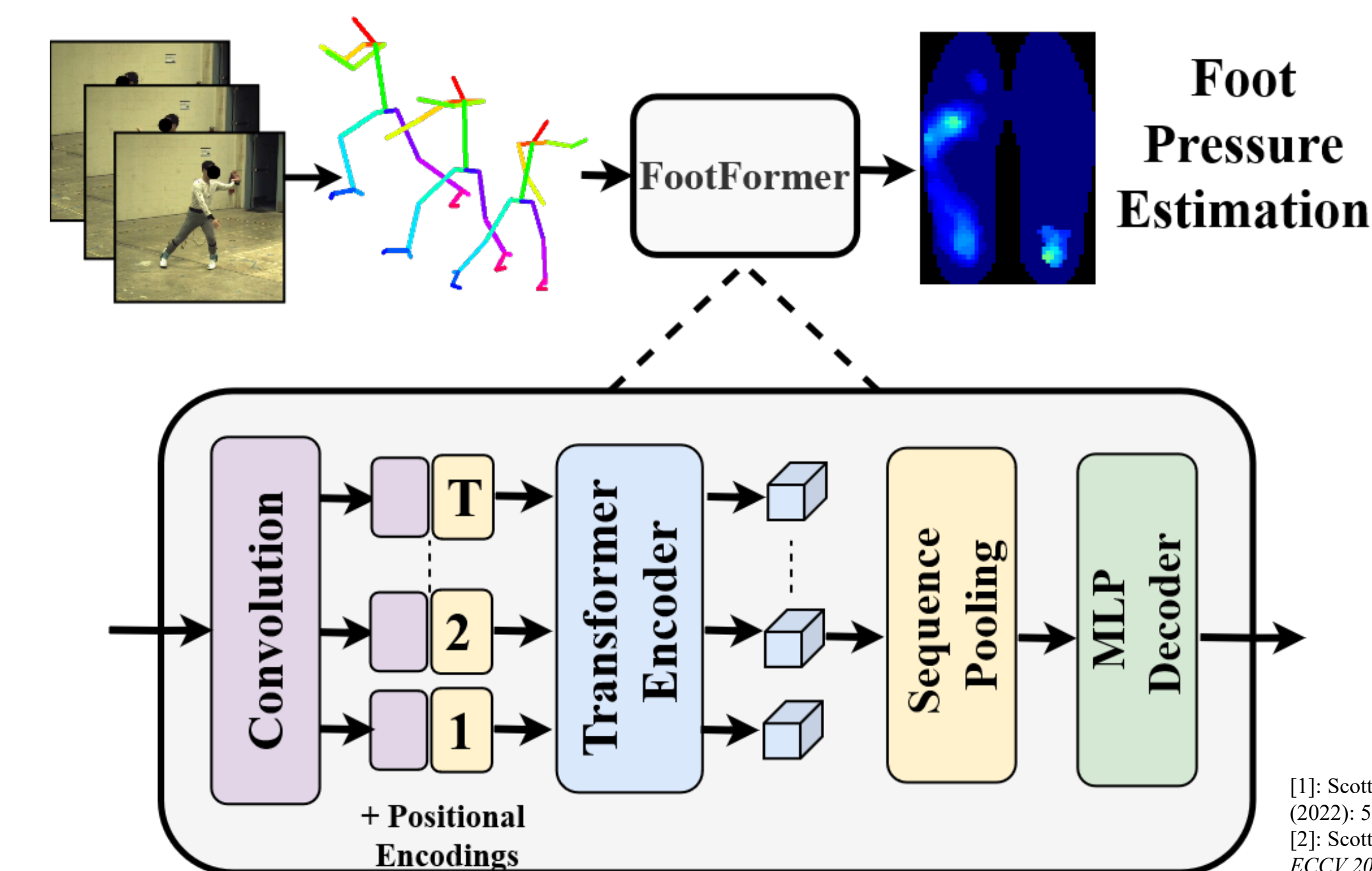
Abstract



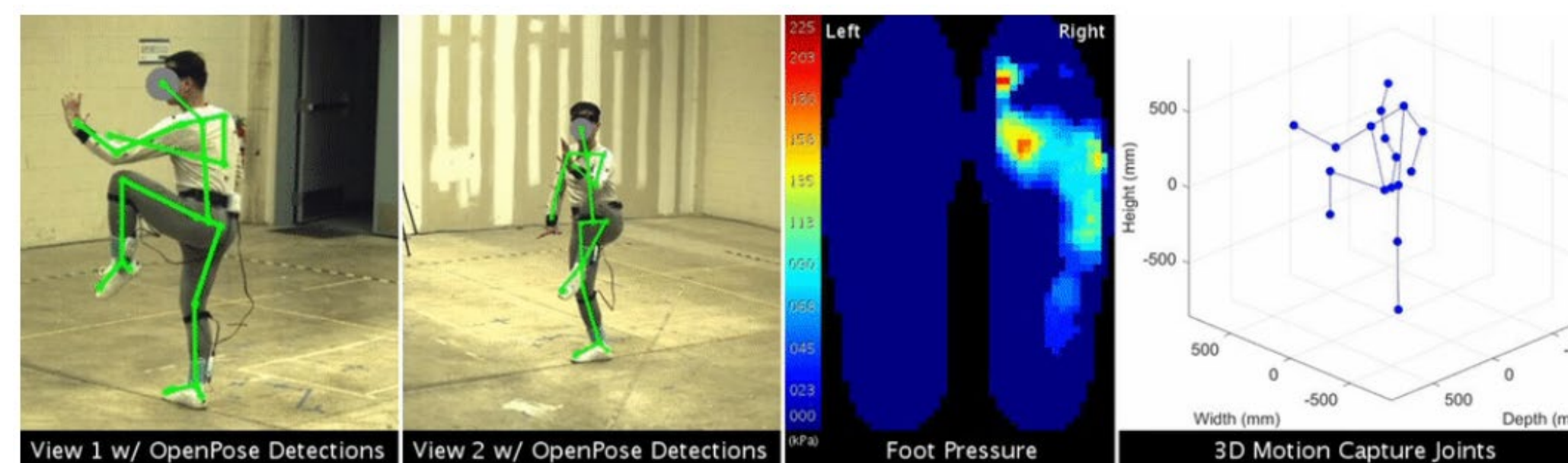
Applications

- Healthcare
- Graphics
- Sport-Science
- Safety Monitoring
- Humanoid robots
- Sport-Medicine

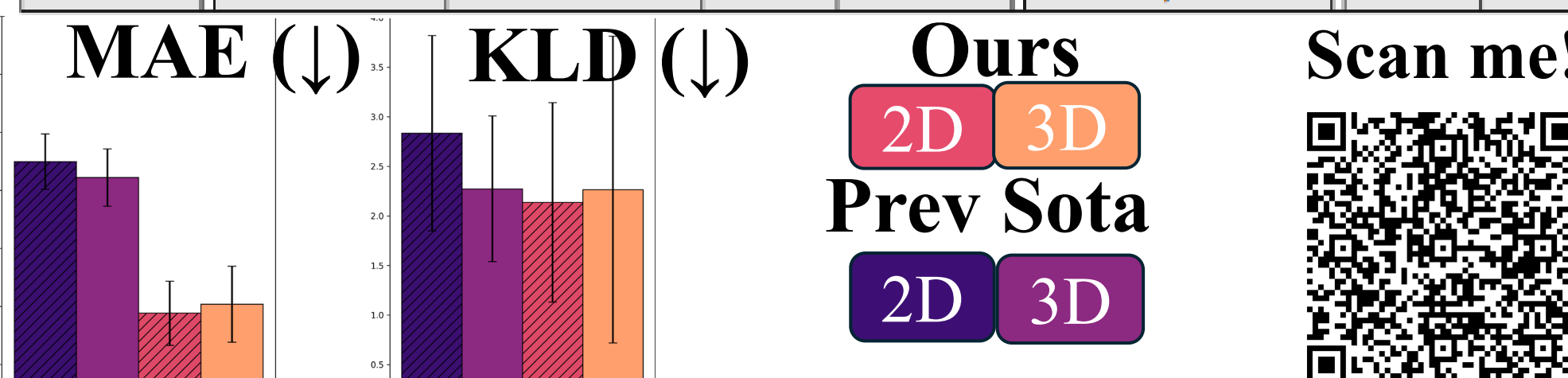
Model



PSUTMM-100



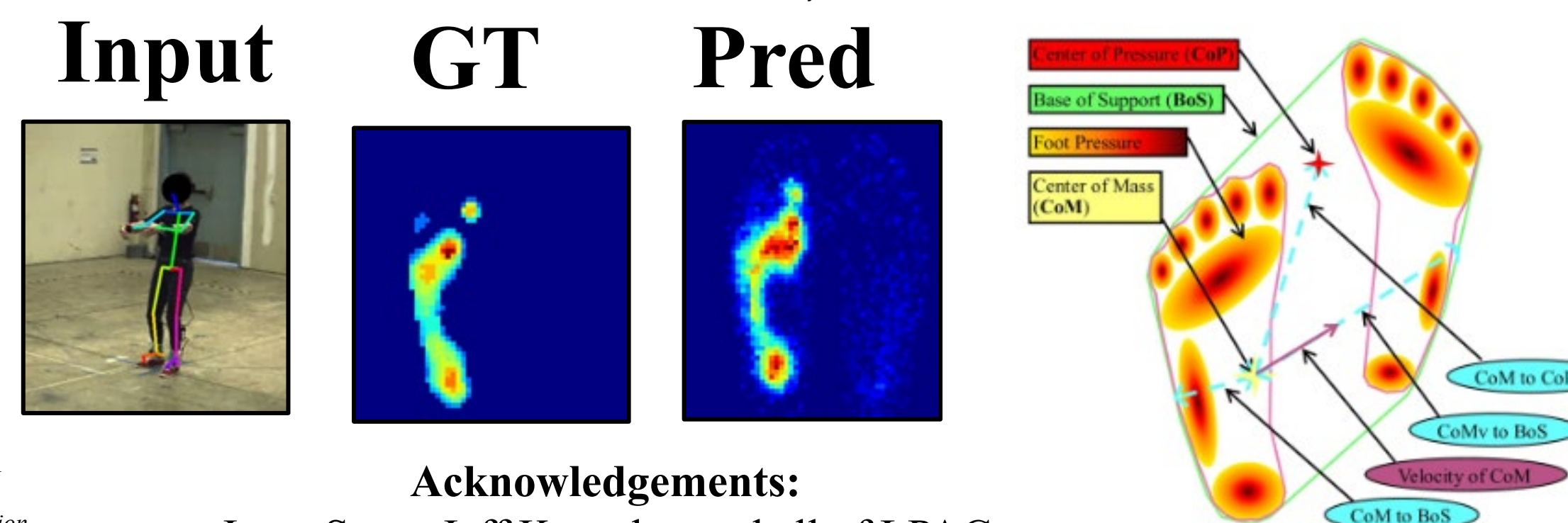
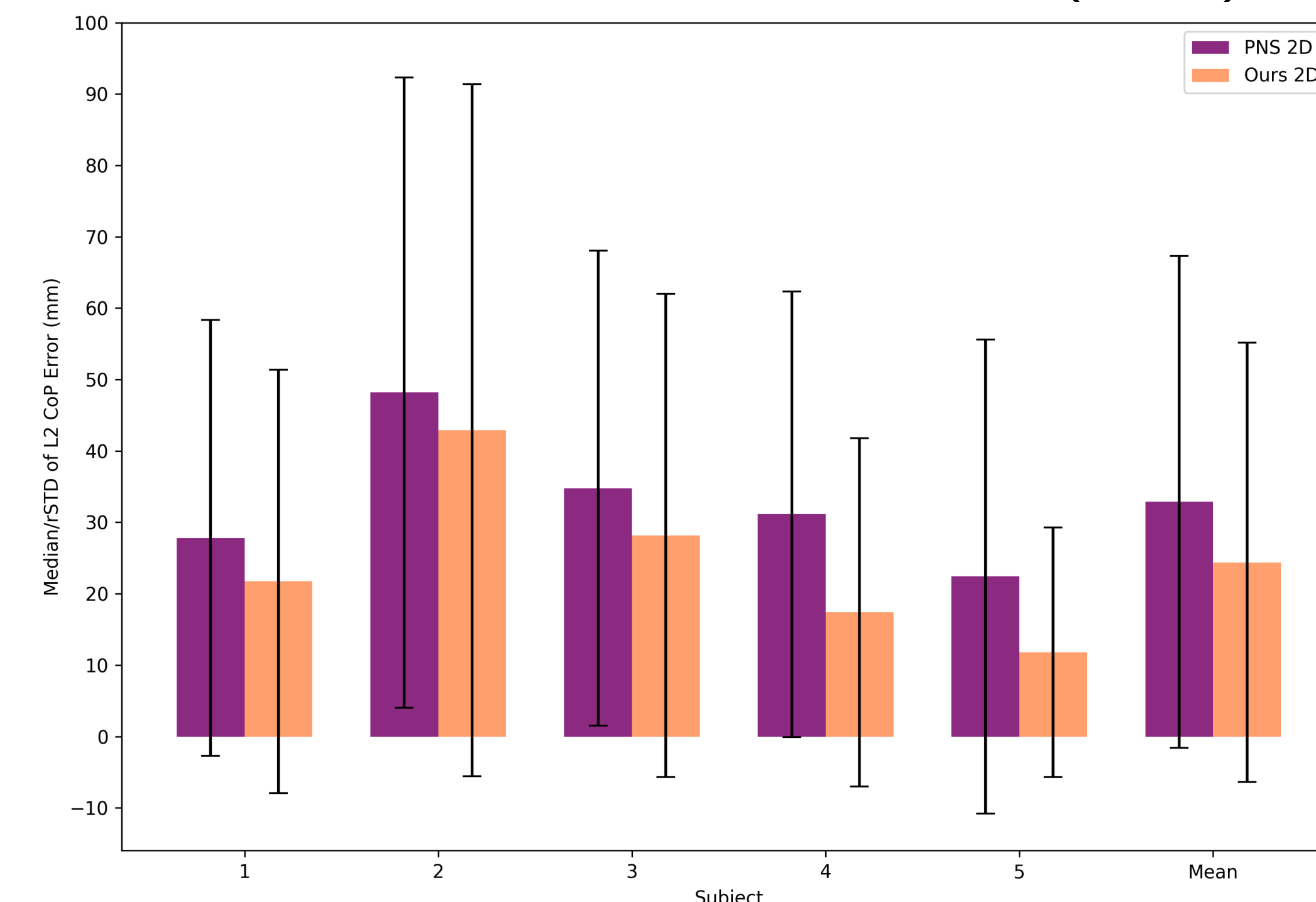
Subject	Demographics				Dataset	Pressure (kPa)	
	Mass (kg)	Height (m)	Years	Gender	# Data Pairs	Mean	Std
1	52.20	1.60	9	Female	158,875	6.44	19.31
2	66.67	1.72	10	Male	123,825	6.18	32.39
3	63.50	1.60	6	Female	101,950	6.67	28.34
4	77.11	1.70	9	Male	146,700	9.46	33.46
5	60.00	1.56	5	Female	123,915	10.54	34.90
6	55.00	1.54	32	Female	157,785	9.25	35.36
7	68.00	1.69	40	Male	153,130	8.37	25.00
8	70.00	1.80	4	Male	124,805	5.26	26.64
9	60.00	1.63	10	Female	126,845	5.86	22.81
10	64.50	1.73	4	Male	145,570	6.44	23.99
Mean	63.70	1.66	13	5M,5F	136,340	7.45	28.22
Std	6.95	0.08	12		17,774	1.71	5.29



[1]: Scott, Jesse, John Challis, Robert T. Collins, and Yanxi Liu. "Image-Based Stability Quantification." *IEEE Transactions on Neural Systems and Rehabilitation Engineering* 31 (2022): 564-573.
 [2]: Scott, Jesse, Bharadwaj Ravichandran, Christopher Funk, Robert T. Collins, and Yanxi Liu. "From image to stability: Learning dynamics from human pose." In *Computer Vision—ECCV 2020: 16th European Conference, Glasgow, UK, August 23–28, 2020, Proceedings, Part XXIII 16*, pp. 536-554. Springer International Publishing, 2020.

From Vision to Stability

Center of Pressure Error (mm)



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 Jesse Scott, Jeff Koumba, and all of LPAC

Generalizing to Unseen Daily Movements

Straight Walk Circular Walk Lateral Walk Balance Calf-Raise Squat Lunge Kick Push Throw Stretch

