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Statement of joint contributions

In the following, we state our contribution as co-authors in the following publications:

- I. Kärkkäinen and P. Fränti, "Stepwise algorithm for finding unknown number of clusters", Advanced Concepts for Intelligent Vision Systems (ACIVS'2002), Gent, Belgium, 136-143, September 2002.
- I. Kärkkäinen and P. Fränti, "Dynamic local search for clustering with unknown number of clusters", Int. Conf. on Pattern Recognition (ICPR'02), Québec, Canada, vol. 2, 240-243, August 2002.
- I. Kärkkäinen and P. Fränti, "Minimization of the value of Davies-Bouldin index", P3. IASTED Int. Conf. on Signal Processing and Communications (SPC'2000), Marbella, Spain, 426-432, 2000.
- P. Fränti, M. Xu and I. Kärkkäinen, "Classification of binary vectors by using DeltaSC-P4. distance to minimize stochastic complexity", Pattern Recognition Letters, 24 (1-3), 65-73, January 2003.
- I. Kärkkäinen and P. Fränti, "Variable metric for binary vector quantization", IEEE Int. P5. Conf. on Image Processing (ICIP'04), Singapore, vol. 3, 3499-3502, October 2004.
- I. Kärkkäinen and P. Fränti, "Gradual model generator for single-pass clustering", IEEE P6. Int. Conf. on Data Mining (ICDM'05), Houston, Texas, USA, 681-684, November 2005.
- T. Kinnunen, I. Kärkkäinen and P. Fränti, "Is speech data clustered? statistical analysis P7. of cepstral features", European Conf. on Speech Communication and Technology, (Eurospeech'2001), Aalborg, Denmark, vol. 4, 2627-2630, September 2001.

In P4, Mantao Xu derived and implemented the ΔSC equations and performed experiments. Ismo Kärkkäinen implemented the stochastic complexity and the clustering algorithms used in the paper, and helped with the data sets. Pasi Fränti was the principal author of the paper responsible for the writing.

In P7, Ismo Kärkkäinen implemented all the methods used in the paper, made the data convertions, and performed experiments for Section 5. Tomi Kinnunen performed data collection and feature extraction, and was the principal author of the paper, and therefore responsible of the writing, except Section 4, which was prepared by Ismo Kärkkäinen. Pasi Fränti's role was that of the supervisor.

In all other papers, Ismo Kärkkäinen was the main contributor for developing the new ideas, and he is the principal author responsible for writing. Pasi Fränti's role was that of a supervisor. Tom Hiz

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