

SAI08 - Call for Papers

International Workshop on Smart Animal Identification and Population Monitoring

(Submission deadline for contributions is the 1st August 2008, 11:59pm GMT)

Workshop Dates: 15.-17. December 2008
University of Bristol, United Kingdom

Website: <http://sai.cs.bris.ac.uk>
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Call for Papers.

Contributions are invited from Biologists, Computer Scientists, Engineers, or collaborative groups of any nature working on any aspect of non-invasive, computer-aided identification of individual animals or smart remote monitoring of animal populations, including, but not limited to:

BASIC RESEARCH:

models/algorithms for animal biometrics, species identification and behaviour detection

ENGINEERING SOLUTIONS:

non-invasive, automated systems for individual animal identification and monitoring

SCIENTIFIC APPLICATIONS:

field studies using computer-aided, non-invasive animal identification systems

Special consideration will be given to presentations by young researchers and postgraduate students, as a primary aim of the workshop is to identify and create collaborations between future leaders in this rapidly growing field. However, researchers at all career levels are invited to join and contribute.

Motivation.

The entire spectrum of field-based biological research has been held back for 70 years by the difficulty, cost and intrusiveness of marking and tagging animals, and the inefficiency of manual data collection and analysis thereafter - it is now possible to develop new technology that will enable biologists both to identify individuals within a population and to monitor large numbers of diverse species cheaply, quickly & automatically without synthetic devices.

Increasing human interference with vital ecosystems generates a pressing need for collaborative efforts that integrate the communities of physical sciences, engineers and biologists to produce the synergies necessary for intelligent conservational and ecological policies.

Scientific Focus.

Technologies do not have to be applied to studies of wild animals or natural populations, but emphasis will be given to papers that develop new technologies or enhance the capacity of existing techniques for species and individual identification. Papers from biologists or collaborative groups using existing computer-aided, non-invasive techniques on a totally novel study system would also be encouraged.

Papers that employ invasive but remote technologies such as satellite transmitters will only be considered if they represent some development in the field to limit the level of disturbance to individuals or populations required, to move towards non-invasive techniques, or to automate some form of data analysis. Papers using such technology in a conventional format as a means to compare to or otherwise validate automated, non-intrusive methods are also encouraged.

Many species carry unique skin or feather patterns that differ significantly from individual to individual while following a wider theme typical for the species. As such, visual biometric systems currently seem to offer the best hope for a non-invasive, multi-functional tool that can be applied across a very wide range of species, and application scenarios. Therefore, a major theme of this workshop will be biometric vision systems capable of autonomously monitoring populations and modelling their dynamics and behaviour. An emphasis will be placed on integrated approaches that are robust enough to be deployed in largely unconstrained environments and to be used by biologists with little or no technical expertise.

Publication.

The workshop will publish an abstract volume of the workshop proceedings in printed form, containing all accepted contributions of the workshop.

In order to increase accessibility and scientific impact, the full paper proceedings will be published online by the University of Bristol.

For registration, submission of contributions and further information please visit:
<http://sai.cs.bris.ac.uk>