

**MEMORANDUM OF UNDERSTANDING
FOR
THE JET EXPERIMENTS IN NUCLEAR STRUCTURE AND ASTROPHYSICS
(JENSA)
COLLABORATION**



WHEREAS, the members of the Jet Experiments in Nuclear Structure and Astrophysics (hereinafter referred to as “JENSA”) Collaboration, comprising of individual scientists from several institutions, desire to cooperate in research activities in the design, construction and operation of a supersonic gas jet target for nuclear physics studies, and to act with one accord in the pursuit of these studies.

THEREFORE, the members of the newly-formed JENSA Collaboration (herein “Parties”) do hereby agree as follows:

I. Purpose

The Parties shall together promote research cooperation with a view to contribute to the advancement of scientific research and technological development in nuclear physics.

II. Scope

This document shall serve to cover the collaborative research efforts of the Parties, including, but not limited to: design and construction of a gas jet target for radioactive ion beam studies; preparation and submission of Letters of Intent, proposals and experimental campaigns to utilize said target; participation in experiments requiring said target or characterizing/commissioning said target; presentation of results acquired with said target; and publication of said results in proceedings and manuscripts. Additional areas of research cooperation may be added by mutual agreement.

III. Forms of Research Cooperation

Forms of research cooperation within the JENSA collaboration may include, but not be limited to: exchange of personnel; exchange of information; implementation of cooperative research

programs; and joint use of facilities. Research cooperation in other forms than those mentioned shall be determined through mutual consultation and agreement.

IV. Definitions

Definitions to be understood throughout this and additional related documents include terminology which is used across the nuclear physics research community. "Target" refers to the system of apparatus, gauges, pumps, chambers, compressor, gases, etc. which is necessary for the operation of the gas jet for research purposes. "Letter of Intent" refers to the documents produced by a collaboration to announce intent to study a specific or general experimental campaign, when the Facility, the Parties, or the necessary equipment is not yet fully prepared for said campaign. "Proposal" refers to the documents produced by a collaboration to announce intent to study a specific or general experimental campaign, which are submitted to a facility either through a Program Advisory Committee for consideration by a panel or to a Director/User Liaison for discretionary beam time. "Manuscript" refers to any publication, peer reviewed, refereed or not, which describes the gas jet and/or presents results from the gas jet. "Spokesperson" refers to the Party most intimately involved with the current design/result/test/campaign/proposal and who is thus most appropriate to present said information. Etc.

V. Policy

a. Parties and/or their Representatives shall meet, as occasion demands, to review the progress of research cooperation that is currently underway.

b. Details concerning the sharing of expenses, publication of research results, ownership of research results, and other matters shall be determined through mutual consultation and agreement by the Parties. Additional documents of collaboration or agreement specific to details of implementation of research cooperation may be prepared.

c. Transportation and living expenses for researchers/Parties to participate in aforementioned cooperative research shall be covered by the Party's home institution unless otherwise agreed.

d. The Parties shall strive to make research results publicly known to the scientific community and society at large primarily through publications, seminars, lectures, and conferences. Procedures for disclosing research results shall be determined through mutual consultation and agreement by the Parties.

e. This Memorandum of Understanding may be amended by written consent of a simple majority of the Parties.

f. Matters not provided for in this Memorandum shall be determined through mutual consultation and agreement of the Parties.

VI. General Provisions

a. Research cooperation will be in concert with each participating Party's/institution's national and local regulations, procedures and policies.

b. Treatment of intellectual property rights will be determined between the Parties through mutual consultation and agreement on a case-by-case basis, consistent with the principles of existent international, national and local laws, as well as each Party's local regulations, procedures and

policies. The Parties agree that this Memorandum does not itself constitute any grant or license under any intellectual property rights now or in the future held by any Party, except as may be provided for in a separate written agreement.

c. Membership in the JENSA Collaboration shall be determined by intent, participation, and/or means. Membership may be requested of any Party, but may require mutual consultation and agreement by the Parties to determine eligibility via intent to participate, previous or current participation, and/or means to participate. This clause is not to be used as justification for any discrimination, but as a method for determining appropriate eligibility of Membership.

d. Division of responsibilities shall be determined through mutual consultation and agreement of the Parties, and shall account for time availability, ability, funding, access to information, etc.

e. The Spokesperson(s) for any given aspect of the gas jet target shall be the Party(ies) who is(are) most intimately involved in said aspect, and shall act as first author(s) on publication of information regarding said aspect, unless agreed upon by the Parties. Author order after first author(s) shall be alphabetical.

VII. Period of Validity

This Memorandum is intended to memorialize the understanding of the Parties to encourage and promote cooperation in JENSA Collaboration research activities. The Parties agree that this Memorandum is not intended to be legally binding and that if the Parties desire to create specific, legally-binding obligations with respect to performance of activities as part of such collaboration and/or cooperation, such binding obligations shall be set forth in a separate written agreement signed by duly authorized representatives of those Parties.

This Memorandum shall become effective on the date it is ratified by a majority of the Parties and be valid for ten (10) years. Written notice of intent to extend or terminate this Memorandum shall be given by one Party to the other Parties at least six (6) months prior to the date of termination.

IN WITNESS WHEREOF, the Parties have executed this Memorandum and represent that they approve, accept and agree to the terms contained herein.

By:
Kelly Chipps, Colorado School of Mines,
for the JENSA Collaboration
Date ratified:
March 29th, 2011

APPENDIX: Founding Members of the JENSA Collaboration, March 29th, 2011
(alphabetical order)

Dan Bardayan, Oak Ridge National Laboratory
Jeff Blackmon, Louisiana State University
Kelly Chipps, Colorado School of Mines
Manoel Couder, University of Notre Dame
Luke Erikson, Pacific Northwest National Laboratory
Uwe Greife, Colorado School of Mines
Ulrike Hager, Colorado School of Mines
Alberto Lemut, Lawrence Berkeley National Laboratory
Laura Linhardt, Louisiana State University
Zach Meisel, National Superconducting Cyclotron Laboratory/Michigan State University
Fernando Montes, National Superconducting Cyclotron Laboratory/Michigan State University
Steve Pain, Oak Ridge National Laboratory
Daniel Robertson, University of Notre Dame
Fred Sarazin, Colorado School of Mines
Hendrik Schatz, National Superconducting Cyclotron Laboratory/Michigan State University
Kyle Schmitt, University of Tennessee Knoxville
Michael Smith, Oak Ridge National Laboratory
Paul Vetter, Lawrence Berkeley National Laboratory
Michael Wiescher, University of Notre Dame