

**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.

The Collaboration agrees to the following:

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.

Our goal is to be a functioning collaboration.

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

This MoU covers basically any activity a collaboration might undertake, except for maybe holiday parties.

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. As the potential for additional research capabilities, such as the Separator for Capture Reactions (SECAR), become available for use with the gas jet target, the Parties would collaborate fully and openly with members of any such Collaboration. Additional areas of research cooperation may be added by mutual agreement.

We also agree to play fair with other collaborations.

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.

As a Collaboration, we can share information, run experiments, swap postdocs, etc. Anything non-standard needs separate agreement.

IV. Definitions

Definitions to be understood throughout this and additional related documents include terminology which is used across the nuclear physics research community. "Party/Parties" refers to the members of the JENSA Collaboration or their designated representatives. "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

Dictionary time.

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.

We should talk regularly.

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.

This MoU doesn't specify how we should split our bill, publish our papers, etc. We have to decide that separately.

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.

Generally speaking, you pay your own way.

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.

Our results are important, so we need to present them and publish them.

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

Changes need a simple majority vote from the Collaboration.

f. Matters not provided for in this Memorandum shall be determined through mutual consultation and agreement of the Parties. Decisions which involve the effort, time or funding of Parties will require a two-thirds majority.

Anything that we haven't covered should be agreed upon separately. If we're discussing matters of money, time, or manpower, 2/3rds of the Collaboration has to ok the agreement.

VI. General Provisions

a. Research cooperation will be in concert with each participating Party's/institution's national and local regulations, procedures and policies. *Abide by any actual laws while enacting the rules in this document.*

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. *This document doesn't give any direction regarding intellectual property rights, but let's hope that people in the Collaboration don't start trying to patent gas jet components.*

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. *You can join the JENSA Collaboration if you'd like to, but you do have to contribute something. That something could be some of your time, ideas for experiments, a new baratron gauge, whatever. The rest of the Collaboration will discuss whether you qualify, if you can't immediately show some reason that you should be a member.*

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. *We'll agree as we go along who is responsible for what.*

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. *First author is the person who put in the most effort on that particular thing. After that, we're listed alphabetically.*

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 *All the usual non-legally binding legalese.*

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.

This document is valid for ten years from March 29th, 2011. The document will expire March 28th, 2021, unless somebody writes to everyone else in the Collaboration asking for an extension before September 28th, 2020.

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 *People present at the meeting where we agreed to
Collaboration, March 29th, 2011* *this document's rules.*
(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