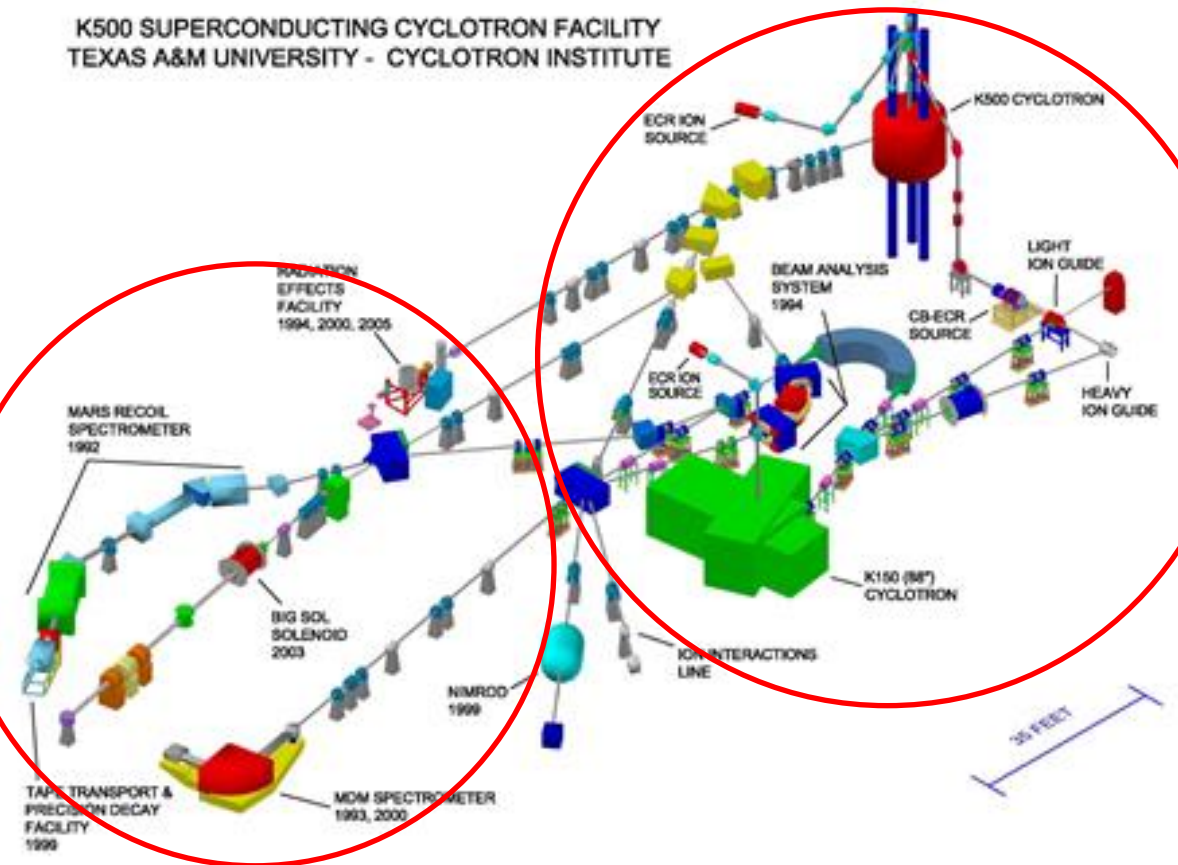


Texas A&M Evaluation Center Strategic Priorities

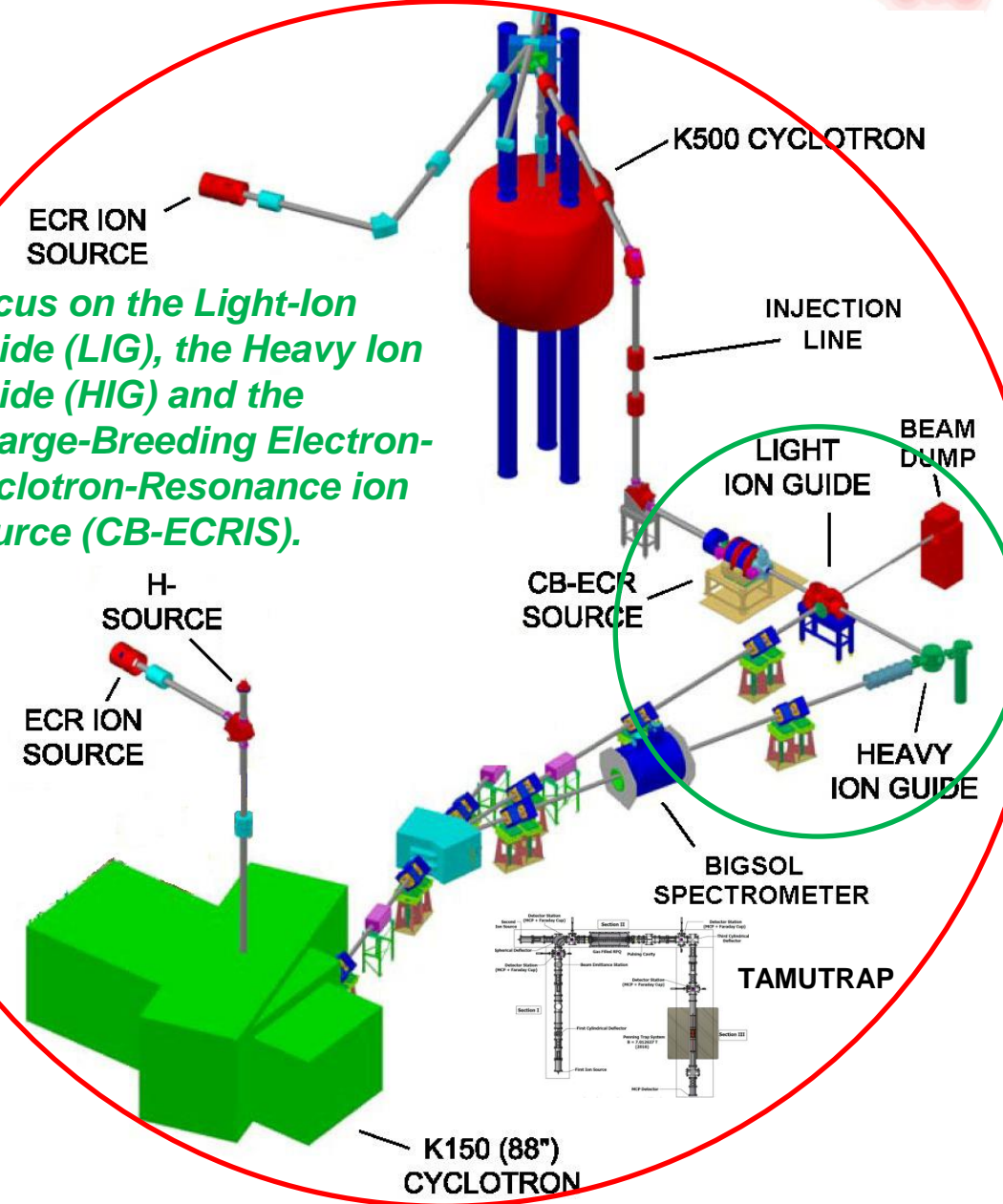
- **Continuing ENSDF Mass Chain Evaluation (1 FTE)**
First Strategic Priority according to the Mission Statement.
All other priorities will be strictly subordinated to this purpose
- **Produce experimental nuclear data to aid data evaluation**
**Precision Internal Conversion Coefficients Measurements at
Cyclotron Institute, Texas A&M University to give USDNP the best
approach for ENSDF ICC-calculated values (concluding cases
pending on conditions)**
- **Experimental studies of Medical Isotopes**
**Invers kinematics methodology, Cyclotron Institute, Texas A&M
University**
- **Reevaluation of data procedures for basic science and data evaluation**
**Level scheme re-concept based on Repeatability, a newly revealed
experimental data evidence**

Texas A&M Evaluation Center: Data Evaluation Station at Cyclotron Radioactive Ion Beam Facility to assist experiments and pre-evaluate data

K500 SUPERCONDUCTING CYCLOTRON FACILITY
TEXAS A&M UNIVERSITY - CYCLOTRON INSTITUTE



Focus on the Light-Ion Guide (LIG), the Heavy Ion Guide (HIG) and the Charge-Breeding Electron-Cyclotron-Resonance ion source (CB-ECRIS).



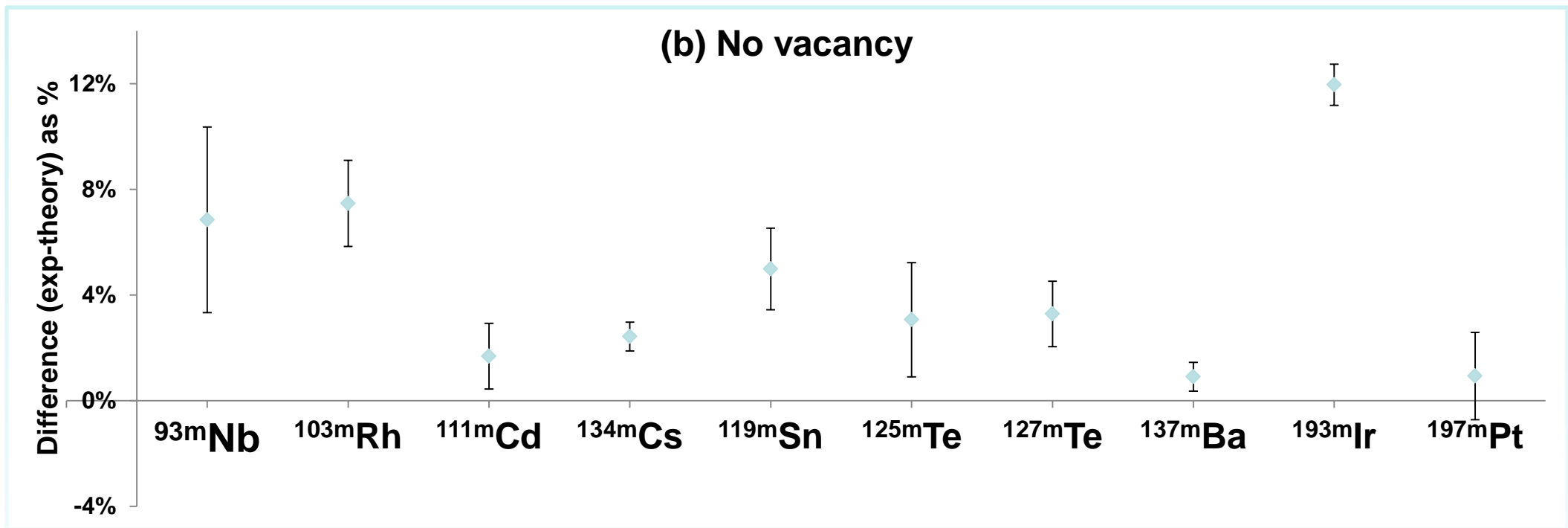
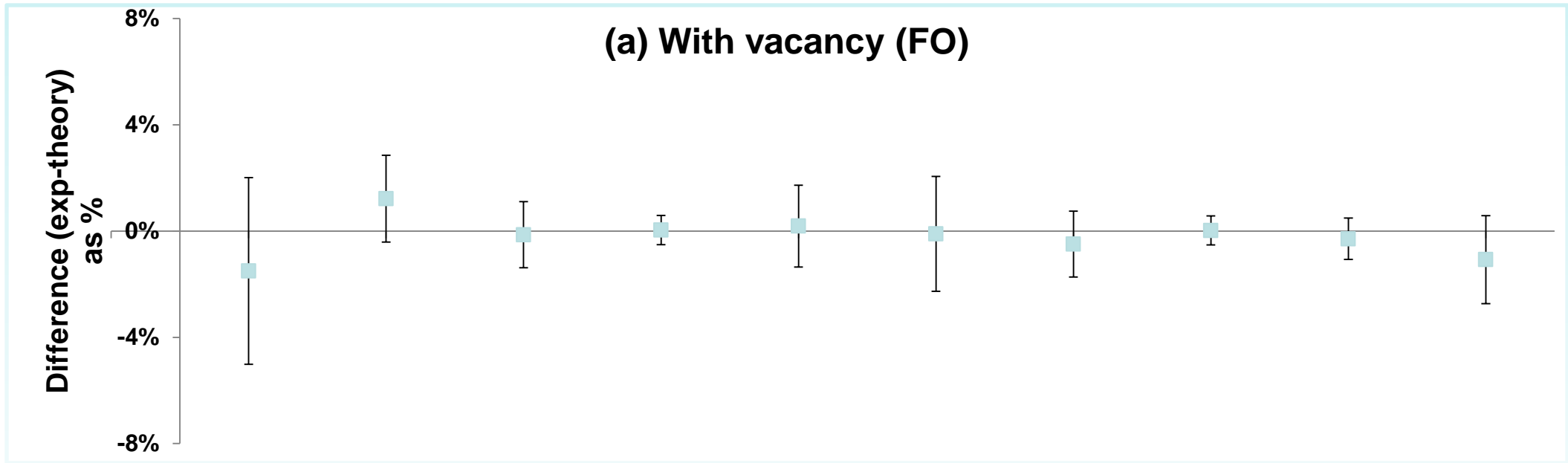
Texas A&M Evaluation Center

Expanded Involvement in Applied Measurements of Precision Internal Conversion Coefficients

Theme: Precision Measurements for USNDP

- Texas A&M Center implied decisively by decade-long program of Internal Conversion Coefficient (ICC) Precision Measurements to guide USNDP for best approach of theoretical ENSDF database ICC values**

	Parent		Transition	Measured	Calculated α_K values:		
	State	Multipolarity	Energy (keV)	α_K	No	"Frozen	SCF
					vacancy	Orbitals"	
1	^{93m} Nb	M4	30.760(5)	25600(900)	23960	25990	25440
2	^{103m} Rh	E3	39.752(6)	141.1(23)	131.3	139.4	137.2
3	^{111m} Cd	E3	150.825(15)	1.449(18)	1.425	1.451	1.446
4	^{119m} Sn	M4	65.660(10)	1621(25)	1544	1618	1603
5	^{125m} Te	M4	109.276(15)	185.0(40)	179.5	185.2	184.2
6	^{127m} Te	M4	88.23(7)	484(6)	468.6	486.4	483.1
7	^{134m} Cs	E3	127.502(3)	2.742(15)	2.677	2.741	2.73
8	^{137m} Ba	M4	661.659(3)	0.0915(5)	0.09068	0.0915	0.091
9	^{193m} Ir	M4	80.22(2)	103.0(8)	92.0	103.3	99.7
10	^{197m} Pt	M4	346.5(2)	4.23(7)	4.191	4.276	4.265
				χ^2 :	252	1.5	21.5

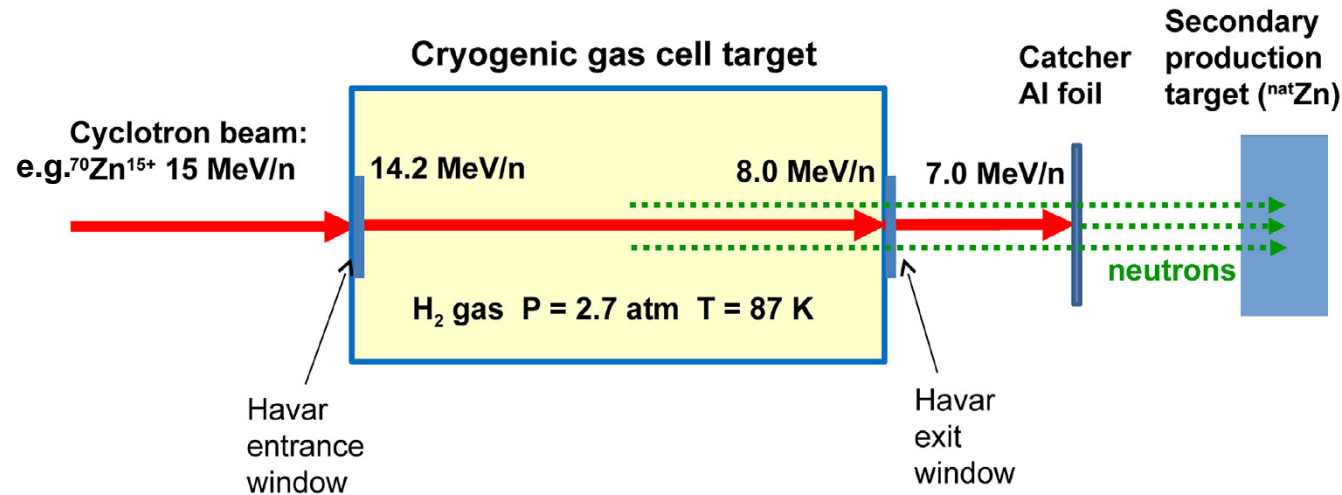


Texas A&M Evaluation Center

Expanded Involvement in Applied Measurements for Medical Isotopes Production by Inverse Kinematics

Theme: Research for Medical Isotopes Production by Inverse Kinematics

- **Innovative method for the production of important medical radioisotopes based on the nuclear reaction in inverse kinematics, by:**
 - Directing a heavy ion beam of appropriate energy on a light target (e.g., H, d, He) and
 - Collecting the isotope of interest on an appropriate catcher after the target.

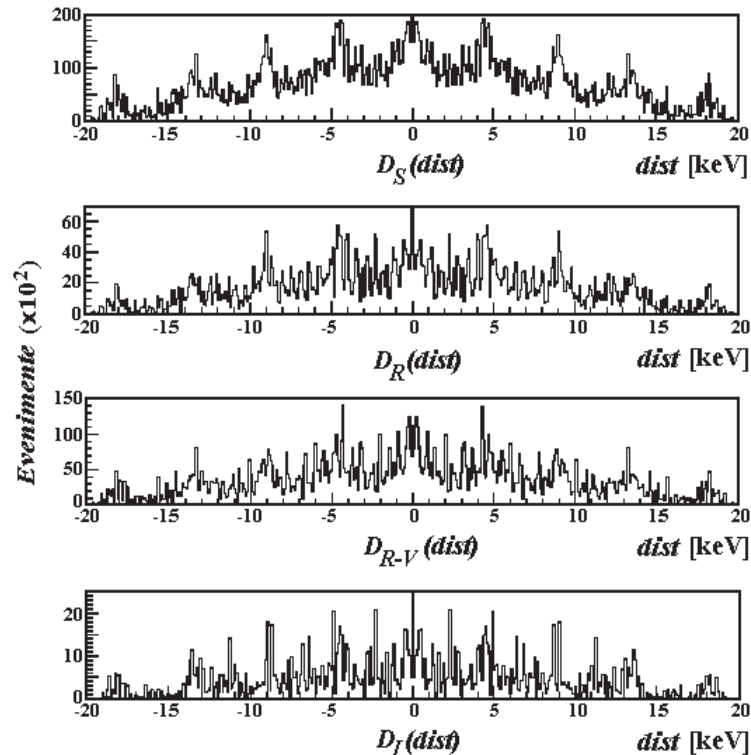


Texas A&M Evaluation Center

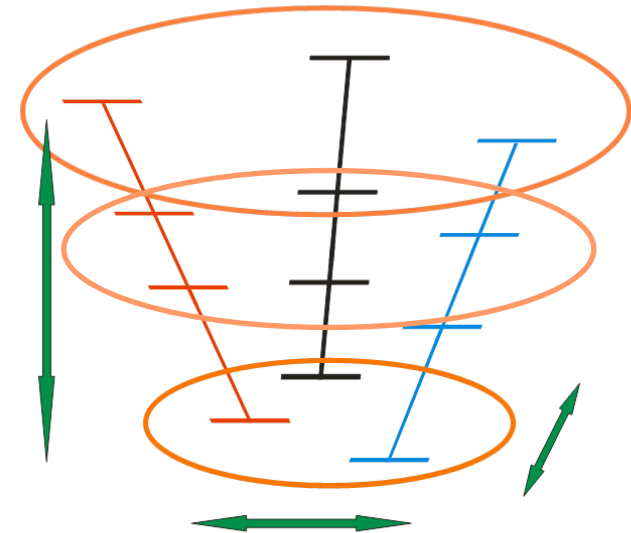
New Initiatives & Directions

Theme: Data Evaluation for Basic Physics

- **Reevaluation of data procedures for basic science and data evaluation**
Level scheme re-concept based on Repeatability, a newly revealed experimental evidence



Regular $E_{\gamma_i}-E_{\gamma_j}$ Distributions $D(dist)$
(high spin data)



3D Correlations
in the Level Scheme